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Existential Inertia and Classical Theistic Proofs



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ISBN 978-3-031-19312-5 ISBN 978-3-031-19313-2 (eBook)
<https://doi.org/10.1007/978-3-031-19313-2>

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Preface

Aims

When I (Joseph) learned about evolutionary theory in seventh grade, I fell in love. I marveled at how the beauty, grandeur, and diversity of life arose from such simple, humble origins. There was something elegant—something beautiful, magnificent, even mysterious—about simplicity and unity giving rise to complexity and diversity.

As I reflected, however, my optimism and awe toward evolution diminished. The horror and brutality of the evolutionary process pierced my mind and heart. For hundreds of millions of years, untold numbers of animals experienced profound languishing, suffering, death, predation, and parasitism. Evolution is a cruel, grueling process in which the weak, sick, and dying are unforgivingly discarded. To make matters worse, this was the *means* or *mechanism* by which biological diversity (in general) and humans (in particular) were created. The very engine of creation was suffering and death. How could such a process be the providential working, I wondered, of a perfectly good God?

Confronting these facts and others led me into greater depths of inquiry. Answering my questions required investigating the nature of evil, suffering, and consciousness. And answering *these* questions required investigating metaphysics, the nature and existence of God, and the foundations of reality. Beginning with evolution, I ended with *philosophy*. And once I encountered philosophy, there was no going back from there.

In this philosophical journey, I stumbled upon a view that captivated me just as much (and for the same reason) as evolutionary theory. On this view, reality as a whole mirrored the grandeur of evolution—or, perhaps more accurately, the grandeur of evolution was a reflection of reality as a whole. According to the view, unity begets multiplicity, simplicity begets complexity, and oneness begets plurality. The view ignited the same awe I experienced toward evolutionary theory in seventh grade.

That view is *classical theism*. According to classical theism, reality's foundation or ultimate ground is an absolutely simple divine being upon which all else depends.

All complexity, multiplicity, and plurality derive from a being of pure, undifferentiated actuality. Just as biological diversity pours forth from simple origins, diversity in *being* pours forth from an absolutely simple being.

To many, classical theism seems counterintuitive and extravagant. But many philosophers have sought to *demonstrate* or *prove* its truth. One of our aims in this book is to show that prominent proofs of this sort fail. In particular, we target seven proofs or arguments for the existence of the God of classical theism:

- (1) Aquinas's First Way, which reasons from change to a purely actual, unmoved mover (Chap. 2)
- (2) The Aristotelian proof, which reasons from change and the existence of changeable substances to a purely actual, unactualized actualizer (Chaps. 3, 4 and 8)
- (3) The Neo-Platonic proof, which reasons from composite beings to an absolutely simple being (Chap. 9)
- (4) The Augustinian proof, which reasons from abstracta to an infinite, necessarily existent, purely actual intellect (Chap. 10)
- (5) The Thomistic proof, which reasons from essence-existence composites to a being in which essence and existence are identical (Chap. 11)
- (6) The Rationalist proof, which reasons from contingent beings to a necessarily existent, purely actual being (Chap. 11)
- (7) Aquinas's *De Ente* argument, which reasons from creaturely composition of essence and existence (*esse*) to an absolutely simple being of pure *esse* (Sect. 7.3.8)

Surprisingly little critical attention has been paid to (2)–(6) in the literature, and the criticisms directed toward (1) and (7) have left many dialectical paths unexplored. Our first aim, then, is to redress that neglect and explore those paths.

Our second aim is to provide the first systematic, book-length treatment of the thesis of *existential inertia*. Roughly, this thesis holds that temporal concrete objects (or some subset thereof) persist in existence in the absence of both external sustenance and sufficiently destructive factors. While existential inertia has received a flurry of scholarly attention within the last few years, articulations and developments of the thesis are surprisingly varied, differing in terms of their modal register, domain of quantification, and much more. Our book provides much-needed clarity and precision in this young and blossoming debate. We also address nearly all extant arguments in the literature against existential inertia and defend novel arguments in its favor.

Our third aim is to probe ultimate reality with the tool of new arguments against classical theism. The purpose of such arguments is to further debates concerning God's nature, existence, and relation to the world. Such arguments will be of interest not only to non-theists but also to non-classical theists seeking to advance non-classical models of God. In fact, one important takeaway of the book is that—at least as far as the classical theistic proofs considered here are concerned—both non-theistic and non-classical theistic models of ultimate reality remain viable, intellectually respectable options.

Structure

In the first chapter, we articulate some essential background on change, classical theism, and neo-classical theism. We distinguish between intrinsic and extrinsic change, after which we articulate both classical and neo-classical theism. Of particular importance is the articulation of the Doctrine of Divine Simplicity (DDS) and the classical theistic understanding of parthood. This doctrine will come up time and again in other chapters of the book. Also in Chap. 1 are several important notes about the dialectical context of classical theistic proofs.

Arguments from change for the existence of an unchangeable source or cause of change have been quite influential in the classical theistic tradition. Chapter 2, therefore, appraises the most prominent argument of this kind: Aquinas's First Way. More precisely, we evaluate a contemporary formulation thereof and uncover a variety of new problems for the argument.

The First Way sets a historical precedent for the argument evaluated in Chap. 3, the Aristotelian proof. This argument reasons from the existence of changeable things to a unique, unchangeable being that creates and sustains them. The argument consists of two stages. The first stage begins with the reality of change and concludes to a purely actual, unchangeable, unactualized actualizer. The second stage concludes that such a being enjoys an appropriate array of divine attributes. Chapter 3 is only concerned with the first stage of the proof. Therein, we argue that the proof fails on a wide variety of fronts.

In Chaps. 4, 5, 6 and 7, we delve into the existential inertia thesis. Starting in Chap. 4, we discuss the relationship between existential inertia and the Aristotelian proof. Then, in Chap. 5, we articulate a series of taxonomic questions that any inertial thesis (and anyone engaged in the existential inertia debate) should answer. In Chap. 6, we articulate a variety of novel *metaphysical accounts* of existential inertia—i.e., explanations of persistence that make no reference to external sustaining causes. Finally, in Chap. 7, we explore a panoply of arguments for and against existential inertia. These chapters will be of deep interest to philosophers working on the ultimate explanation of persistence, including metaphysicians, philosophers of time, philosophers of physics, and philosophers of religion.

Recall that the Aristotelian proof consists in two stages. We argue in Chap. 8 that the proof's second stage fails, and we also develop a challenge therein for the second stage of cosmological arguments more generally. We then turn our attention in Chap. 9 to the Neo-Platonic proof, which reasons from the existence of composite beings to an absolutely simple being that explains why such composite beings exist. We argue, first, that the proof's central premise—that anything composite requires a cause—is both unjustified and dialectically ill-situated. We then argue that the proof fails to deliver the mindedness of the absolutely simple being and instead militates against its mindedness. Finally, we uncover tensions between Trinitarianism and the Neo-Platonic proof.

Arguments from abstracta or eternal truths for classical theism trace their intellectual heritage back to Augustine (and perhaps further). One such argument—the

aptly-named Augustinian proof—is the concern of Chap. 10. Therein, we argue that the proof not only fails but is also *incompatible* with classical theism. This provides the basis for new arguments against classical theism from abstract objects. We also explore the debate over theistic conceptualism and other arguments for God from abstracta, such as that defended by James Anderson and Greg Welty.

We then consider in Chap. 11 the Thomistic and Rationalist proofs. The former argues that anything in which essence and existence are distinct ultimately depends on that in which essence and existence are identical. The latter argues that anything contingent ultimately depends on a necessarily existent, purely actual being. We argue that both proofs fail. We conclude in Chap. 12 with a summary of the book's findings.

The book represents a renewed and invigorated inquiry into classical theistic proofs, the ultimate explanation of why things persist in existence, and the existence and nature of God.

Previous Work

A substantial portion of Chap. 3 was first published in Joseph's "Stage One of the Aristotelian Proof: A Critical Appraisal," *Sophia*, 60: 781–796. A portion of Chap. 7 was first published in Joseph's "Existential inertia and the Aristotelian proof," *International Journal for Philosophy of Religion*, 89: 201–220. Finally, a substantial portion of Chap. 9 was first published in Joseph's "Simply Unsuccessful: The Neo-Platonic Proof of God's Existence," *European Journal for Philosophy of Religion*, 13: 129–156. Despite the overlap of these chapters with previously published material, there are significant and new elements of our case against classical theistic proofs contained therein.

Hope

Our central hope is that this book serves you in your pursuit of truth. We also hope to equip you with the tools to think critically about the ultimate nature of reality. Finally, we hope to sharpen your understanding of God, the ultimate explanation of persistence, and beyond.

Style and Format

Asterisks. A select few sections are quite technical. To mark these sections, an asterisk (*) is added to the end of the section title. The asterisks are meant to alert readers to the technicalities in the section. The reader should not fret if the asterisked

sections are too technical to grasp—a complete understanding of the sections is not make-or-break for understanding our case against classical theistic proofs (and in favor of existential inertia). For such readers, we *do* suggest at least perusing the relevant sections to understand their gist.

Chapter organization. The chapters are ordered (more or less) in a dependency series. Each chapter has sections and subsections demarcated topically.

Acknowledgments

We express our utmost gratitude to the following people without whose engagement, ideas, feedback, work, energy, and/or time this book would not be possible: Paul Audi, Scott Berman, Esteban Bonilla, Kenny Boyce, Jeff Brower, Sean Carroll, Christopher Coughlin, Jan Cover, Paul Draper, August D., Ed Feser, Joshua Harris, Gaven Kerr, Mikhail Lastrilla, Felipe Leon, Alex Malpass, Tyler McNabb, Ryan Mullins, Steven Nemes, Tom Oord, Graham Oppy, Alex Pruss, Josh Rasmussen, James Reilly, Parker Settecasse, Christopher Tomaszewski, Vincent Torley, Joseph's parents Amy and Robert, the gracious YouTube commenters who offered feedback on virtual presentations of some of the book's content, and two anonymous reviewers for *Springer*.

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Chapter 1

Introduction



1.1 Introduction

This chapter lays the groundwork for the chapters to come. We begin by defining and demarcating different kinds of change, after which we explain classical and neo-classical theism. We then explain two components of classical theism—namely, the Doctrine of Divine Simplicity (DDS) and the related understanding of parthood prominent in the classical theistic tradition. We conclude by explaining the notions of intrinsicity and extrinsicity and exploring the dialectical context of classical theistic proofs.

1.2 Change, Classical Theism, and Neo-classical Theism

1.2.1 *Change*

The first concept integral to our investigation is *change*. Roughly—and most generally—change at least involves successive “difference or nonidentity in the features of things” (Mortensen 2020). Change therefore minimally involves something going *from* being one way *to* being another way.¹ There are many different kinds of change. For instance, there’s intrinsic and extrinsic change. Intrinsic change involves the gain or loss of intrinsic features, whereas extrinsic change involves the gain or

¹For a helpful recent discussion of the definition of change, see Saudek (2020, pp. 90–95).

loss of extrinsic features.² (Intrinsicity and extrinsicity will be considered in Sect. 1.2.3.)

There's also accidental and substantial change. An entity undergoes accidental change when the entity gains or loses something but nevertheless persists in existence through such a gain or loss. For instance, unless your hairdresser is particularly violent, when you get a haircut you do not (thereby) cease to exist. You remain or continue in existence despite the fact that the length of your hair changed. The haircut did not *kill* you (or even replace you with a distinct but highly similar person with shorter hair). By contrast, substantial change involves a substance or concrete object coming into or going out of existence. When little Fido dies, Fido ceases to exist altogether and gives way to a corpse. Fido does not persist through this change.^{3,4}

Though neither exhaustive nor representative, this brief survey of different kinds of change suffices for the purposes of our investigation. A more fundamental question now arises: what even *is* change?

Aristotle offered an influential answer: change is the *actualization of potential*. Change, in other words, is the reduction of potency to act, the transition from potential being to actual being.⁵ Take, for instance, a pomegranate. For Aristotle, there are two ways that a pomegranate can be with respect to ripeness: it can be *potentially* ripe or *actually* ripe. A pomegranate that has not yet ripened has a potential to be ripe. When the pomegranate ripens, the pomegranate's previously unrealized or unactualized potential for being ripe becomes actual.

²Extrinsic changes are sometimes called "Cambridge changes." Brian Leftow, in contrasting extrinsic or Cambridge change with *real* change, says that "[e]xtrinsic changes aren't 'real' in the sense above," that is, in the sense of changes that "take place wholly within" something—ones that are "not 'logically parasitic' on change in other things" (2014). In accord with Leftow, Marshall and Weatherson contrast real and Cambridge change, stating that "an object undergoes real change in an event iff there is some *intrinsic* property it satisfied before the event but not afterwards" (2018). Thus, Cambridge change, under this understanding, would be *any* change that is not intrinsic change. Others have used "Cambridge change" to refer to changes in the truth value of linguistic predications or descriptions borne by something S without *any* actual gain or loss of *any* properties—whether intrinsic or extrinsic—on the part of S. Given these different usages—and given that we take extrinsic change to be just as *real* as intrinsic change—we will avoid talk of "Cambridge change" altogether except when absolutely necessary. We prefer to use instead "extrinsic change" and "intrinsic change." In rare cases wherein we use "Cambridge change," we'll explicitly define the notion to avoid ambiguity.

³Things get tricky under different metaphysical accounts of persistence like endurantism and perdurantism (and the variants thereof). We need not concern ourselves with these views in this section. Instead, we'll handle them as they arise in later chapters.

⁴To be sure, in cases of coming into and passing out of being, there is no substance that undergoes a change; rather, such cases involve the very production or cessation of the entire substance. One might think, then, that the word "change" is misleading here. We can set this aside for now, since what matters is simply that we understand the relevant notions.

⁵For an explication of act, potency, and this analysis of change, see Feser (2014, pp. 34–39, 2017, ch. 1, 2019, pp. 15–22) and Cohen and Reeve (2020).

The pomegranate example helps illustrate the abstract concepts of *potential being* and *actual being*. Potential being (potency, potentiality) is determinable, incomplete, indefinite, unrealized, and unfulfilled existence. Potential being is that which *can* be but is actually *not*. By contrast, actual being (act, actuality) is determinate, complete, occurrent, definite, realized, and fulfilled existence. Actual being is the realization of that which *can* be (or the fulfillment of that which is *capable* of being). According to James Dolezal, “potency in a thing accounts for its ability to exist, become, and change while act is that by which the existence or change is brought about.... [Potency] is the ability or capacity for a thing to become either substantially or accidentally different than it is. An entity is in potency to whatever perfections [or properties] it can acquire but presently does not possess in actuality” (2011, p. 35).

To be sure, there are many other metaphysical accounts of change. Such accounts, however, are not our principal concern. What concerns us here is the account that typically undergirds the classical theistic tradition—or, at the very least, the account that undergirds both (i) the classical theistic tradition with which our book engages and (ii) many of the classical theistic proofs to be evaluated in later chapters. And this account is—by and large, more or less—the Aristotelian account we’ve articulated. Thus, we need not concern ourselves with other accounts of change—at least not yet.

Let’s next consider classical and neo-classical theism.

1.2.2 *Classical and Neo-classical Theism*

Classical and neo-classical theism are models of God. A model of God is a way of conceiving or understanding God’s nature and relation to the world. According to Jeanine Diller and Asa Kasher, a *model* in this context

denotes the broad genus of accounts of the nature of ultimate reality in the literature—from specific metaphysical proposals (such as ‘that thing than which nothing greater can be conceived’) to sustained metaphors ... to ‘schematic prototypes ... that explain, and in some degree condition, the characteristic theses of the theologians who rely on [them]’ ... to what Robert C. Neville calls ... ‘indexical signs’ to an indeterminate Ultimate. (Diller and Kasher 2013, p. 4)

Of course, atheists can also propose models of ultimate reality. For that reason, a model of God should say that ultimate reality is appropriately called “God.” Mullins and Sani (2021) define *models of God* in a way that respects this constraint: “A model of God is a set of unique claims about the nature of God and the God-world relation” (p. 592).

Both classical and neo-classical theistic models affirm that God is omnipotent, omniscient, essentially morally perfect, independent, wholly good and loving, perfectly rational and free, metaphysically necessary, and the creator and sustainer (*ex nihilo*) of every concrete entity apart from God. Classical theism, though—in contrast to neo-classical theism and other models of God—affirms four core theses

about the divine nature: timelessness, simplicity, immutability, and impassibility. We'll call these the "Big Four," as they uniquely demarcate classical theism from other models of God. R.T. Mullins offers a pithy articulation of the Big Four as follows:

To say that God is timeless is to say that He exists without beginning, without end, without succession or moments in His life, and without temporal extension or location. Divine simplicity is the thesis that God lacks all physical and metaphysical composition. God has no parts or diversity in His essence. A strong doctrine of immutability states that God does not undergo any kind of change.... This is closely connected with a strong doctrine of impassibility whereby God cannot suffer, nor be affected by anything outside of Himself. God is perfect joy, and nothing outside of Himself can diminish that joy, nor affect Him in any way, shape, or form. (Mullins 2016b, pp. 10–11)

By contrast, neo-classical theism denies one or more of the Big Four (Mullins 2016a, pp. 331–332, 2020). According to the version of neo-classical theism with which we're concerned in our book, (i) God is temporal; (ii) God is not absolutely simple (in the sense classical theists understand simplicity and parthood)—God has distinct properties, for instance; (iii) God is changeable—i.e., God is not purely actual but has potentials for accidental change; and (iv) God is passible—i.e., God can be influenced or affected by things outside of God.

The distinction between classical and neo-classical theism is important because the proofs evaluated in this book are not merely arguments for the existence of God; they're arguments for the existence of the God of *classical theism*. Their express purpose is to demonstrate classical theism. If such arguments turn out to be entirely compatible with neo-classical theism (and thus the falsity of classical theism), then such arguments simply fail.

Below we turn to a more careful articulation of divine simplicity and its attendant conception of parthood.

1.2.3 *Simplicity and Parthood*

The Doctrine of Divine Simplicity (DDS) affirms that God is completely devoid of physical, metaphysical, and logical parts. Traditionally, DDS is taken to entail that God is identical to God's essence, existence, attributes, action, power, and so on.⁶

⁶There is some controversy over how to define classical theism and DDS. It's going to be difficult to find unanimous support for certain theses across *all* traditions properly regarded as classical theistic (e.g., certain Eastern traditions (such as strands of Hinduism), certain Eastern Orthodox traditions, certain Islamic and Jewish traditions, certain Western Christian traditions, etc.). The definitions of classical theism and DDS we'll use (which follow contemporary scholars like Rogers, Brower, Grant, Dolezal, Stump, etc.) is broadly situated in the tradition following Augustine, Boethius, Lombard, Maimonides, Avicenna, Anselm, Aquinas, etc. and on through the aforementioned contemporary scholars. We focus less on variations of classical theism found in (e.g.) Scotus, Palamas, and the like. (Many of our arguments, though, will apply *mutatis mutandis* to such variations.)

God “necessarily lacks any and all metaphysical complexity or diversity” (Mullins 2016a, p. 327). According to this traditional DDS, each of the following—when distinct in something—are component parts: essence and existence, subject and accidents, individual and associated essence, individual and associated properties, act and potency, and agent and the agent’s actions (Hughes 2018, p. 2; Bergmann and Brower 2006, pp. 359–360; Rogers 1996, p. 166; Dolezal 2017, pp. 41–42; Duby 2016, p. 2; Mullins 2021).

These examples of component parts involve the following understanding of parthood: x is part of S if and only if x is some positive ontological item intrinsic to but distinct from S , where a *positive ontological item* is anything that exists. More simply (and applied to God), “[a]nything intrinsic to God is identical to God” (Fakhri 2021, p. 10). This understanding of parts accords with how DDS is traditionally articulated. As Augustine famously articulated DDS, God *is* what God *has* (Augustine 1958, XI, 10). Similarly with Anselm: addressing God, Anselm writes in his *Proslogion* that “you are whatever you are ... you are the very life by which you live, the wisdom by which you are wise, the very goodness by which you are good” (2001, ch. 12). Also later in the *Proslogion*: “[Y]ou are what you are, since whatever you are in any way or at any time, you are wholly and always that” (*ibid*, ch. 22). Vallicella (2019) follows suit: “God is ontologically simple ... there is nothing intrinsic to God that is distinct from God.” Other scholars studying models of God are similarly explicit about this conception of parthood in relation to DDS.⁷

There are also straightforward paths from other traditional classical theistic commitments to this understanding of parthood. For instance: if there were something intrinsic to God but distinct from God, then there would be something that is *not* God without which God wouldn’t exist. For classical theists, God would then in some sense be *dependent* on something that is not God. This dependence, in turn, is taken to be incompatible with traditional understandings of divine aseity.⁸

Moreover, as Katherin Rogers points out, under classical theism “whatever is not God is created by Him” (1996, p. 167). Michael Bergmann and Jeffrey Brower likewise emphasize that, under classical theism, “(i) God does not depend on anything distinct from himself for his existing and (ii) everything distinct from God depends on God’s creative activity for its existing” (2006, p. 361).⁹ This commitment, together with other classical theistic commitments, entails that there cannot be anything intrinsic to but distinct from God. For if there *were* a positive ontological item

⁷The formula “whatever is *in* God *is* God” is found either explicitly or implicitly in each of the following in connection to classical theism (or, in a few cases, in connection to central figures in the classical theistic tradition): Schmid and Mullins (2022), Spencer (2017, p. 123), Brower (2009, p. 105), Stump (2013, p. 33), Stump and Kretzmann (1985, p. 354), Grant (2012, p. 254), Grant and Spencer (2015, pp. 5–6), Dolezal (2011, p. xvii), O’Connor (1999, p. 410), Kerr (2019, p. 54), Leftow (2015, p. 48), Leftow (2009, p. 21), Sijuwade (Forthcoming), and Schmid (2022). See also the references in each.

⁸See Vallicella (2019) and Williams (2013, p. 96) for more on this point. We will say more about the link between divine aseity and DDS in Chap. 9.

⁹See also Grant (2019, ch. 1) and the references therein.

E intrinsic to but distinct from God, then E would either be essential to God or not essential to God. Suppose that E is essential to God. In that case, since E is distinct from God and anything distinct from God is created by God under classical theism, God must have created E. But, given that E is essential to God, the view that God created E is absurd; no entity, not even God, can create something essential to itself, for the entity would “already” have to exist (and hence have its essence) in order to create anything in the first place.¹⁰ Having rejected the possibility that E is essential to God, we turn to the alternative that E is not essential to God. If E is not essential to God, then there is some potency in God. For if E is not essential to God, then God could exist without having E. But then God can vary intrinsically across worlds, in some worlds having E intrinsically while in other worlds lacking E altogether. In that case, God has the inherent potential to be different than he is, which contradicts God’s pure actuality. Hence, E cannot be non-essential to God. Thus, under classical theism, E can be neither essential nor non-essential to God. And since if there *were* a positive ontological item E intrinsic to but distinct from God, E would either be essential to God or not essential to God, it follows that there can be no positive ontological item E intrinsic to but distinct from God. So, under classical theism, anything intrinsic to God is identical to God.

In light of this talk of intrinsicity, we should ask: what is *intrinsicity*, and how does it relate to the correlative notion *extrinsicity*?

Defining “intrinsic” and “extrinsic” is a matter of controversy (cf. Marshall and Weatherston (2018) and the references therein). Nevertheless, we’ll make do with a classic statement from David Lewis: “We distinguish intrinsic properties, which things have in virtue of the way they themselves are, from extrinsic properties, which they have in virtue of their relations or lack of relations to other things” (1986, p. 61). Elsewhere Lewis articulates the distinction like so:

A sentence or statement or proposition that ascribes intrinsic properties to something is entirely about that thing; whereas an ascription of extrinsic properties to something is not entirely about that thing, though it may well be about some larger whole which includes that thing as part.... If something has an intrinsic property, then so does any perfect duplicate of that thing; whereas duplicates situated in different surroundings will differ in their extrinsic properties. (Lewis 1983, p. 197)

Because not all predicates correspond to properties in extramental, extralinguistic reality, we can likewise distinguish between intrinsic and extrinsic *predications* (on the one hand) and intrinsic and extrinsic (ontological) *items, features, or properties* (on the other hand). Intrinsic predications of S are true solely in virtue of S as it is *in itself*, without reference to things “wholly other” or “outside of” or “external to” S. Intrinsic predications are *not* true in virtue of the relations S bears or fails to bear to things outside S. By contrast, extrinsic predications of S are *not* true solely in virtue of S as it is in itself; they reference things “wholly other” or “outside of” or

¹⁰“Already” here expresses ontological, explanatory, or logical priority rather than temporal priority. Also, here’s another reason to think E couldn’t be essential to God: under classical theism, God could have refrained from creating. But then God could have existed without E, which contradicts our assumption that E was essential to God.

“disjoint from” or “external to” S (even if they merely *deny* some connection or relation between S and such disjoint things). Many extrinsic predications are true in virtue of the relations S bears (or fails to bear) to things distinct from S.¹¹

In the context of models of God, Christopher Hughes nicely explicates intrinsic and extrinsic properties along similar lines. He writes:

[I]ntrinsic properties are typically characterized in one of two ways—either as those properties that a thing has, independently of which relations (if any) it bears to other things ‘outside of’ or ‘disjoint from’ it, or as those properties that could never vary between (actual or possible) perfect duplicates (that is, between two (actual or possible) individuals that were exactly alike). On either characterization, a property such as being named ‘Domitilla’ is extrinsic. (Hughes 2018, p. 3)

While notoriously recalcitrant to analysis, we can make do with an intuitive understanding of the distinction, buttressed by the abovementioned explanations. Nothing in our book hangs on a fully precise and rigorously worked out account of in/extrinsicality.

1.3 Classical Theistic Proofs

Thus far, we’ve spoken very broadly about classical theistic proofs. We should get clear, however, on the specific families of classical theistic proofs that will be center stage in our investigation. One family is what we’ll call *persistence arguments*. Persistence arguments begin by focusing on entities of a particular type. The type varies depending on the persistence argument in question. Some focus on *temporal* entities; others *contingent* entities; still others *changeable* entities; others still *composite* entities; and so on. Thus, the first step of persistence arguments can be put like so:

- (1) There are entities of type T—temporal entities, contingent entities, changeable entities, composite entities, or what have you.

Persistence arguments then claim that entities of type T require a *sustaining efficient cause* at each moment at which they exist. In other words, for an entity of type T to persist in existence, that entity requires a sustaining efficient cause that conserves it in being at each moment of its life. Thus:

- (2) Any entity of type T requires an efficient sustaining cause at any moment at which that entity exists.

¹¹ Though not necessarily *all* extrinsic predications. Some true predications are plausibly *extrinsic* without corresponding to any properties whatsoever—consider, for instance, the predicate “being such that $1 + 1 = 2$ and the moon is not made of green cheese.” (Note that in future chapters, we’ll be construing change in *realist* rather than *nominalist* terms, since classical theistic proofs are almost universally cast within realist metaphysical frameworks. The nominalist, however, can recast all our talk of features, properties, relations, and the like in terms of their favorite re-parsing.)

Together, (1) and (2) imply that any entity of type T is situated within a chain of sustaining efficient causes.¹² But according to persistence arguments, chains of sustaining efficient causes cannot descend infinitely (without a first or primary cause), and neither can they form a causal loop wherein something (directly or indirectly) causes itself.¹³ From this, we get:

(3) Chains of sustaining efficient causes must have a first or primary member.¹⁴

Step (3) implies that any chain of sustaining efficient causes must terminate in at least one thing, S, *without* a sustaining efficient cause. Since any entity of type T requires a sustaining efficient cause, it follows that S is not an entity of type T. Thus, depending on what T is, persistence arguments deliver the existence of at least one entity which is timeless, necessary, unchangeable, non-composite, or what have you. In a second stage of reasoning, this entity is identified with the God of classical theism.

As we'll see in later chapters, persistence arguments abound. Feser's Aristotelian, Neo-Platonic, Thomistic, and Rationalist proofs broadly fit the above schema, and the same is (approximately) true of Aquinas's *De Ente* argument. Persistence arguments also highlight the importance of existential inertia, since the latter clearly challenges step (2) of persistence arguments.

Another family of classical theistic proofs we'll examine concerns the nature and existence of abstract objects like numbers, propositions, universals, and the like. According to this kind of argument, classical theism offers the best (or only viable) account of the existence and character of abstract objects. The conclusion is that abstract objects are ideas in the mind of God. Feser's Augustinian proof is the representative member of this family we'll consider, but we'll also consider *theistic* (though not necessarily *classical* theistic) arguments from abstracta like those of Anderson and Welty, Menzel, and Goldschmidt.

A final family of classical theistic proofs—a representative member of which we'll consider in the next chapter—are *arguments from change*. Like persistence arguments, arguments from change generally enjoy a tripartite structure: (i) there is change; (ii) any change requires a cause; and (iii) chains of causes of change—when ordered in a certain way—cannot descend infinitely or form a loop. The conclusion is that an unchanged changer or unactualized actualizer—perhaps an *unchangeable* changer or *purely actual* actualizer—exists. Unlike persistence arguments, however, arguments from change do not seek to explain the sheer *existence* of entities; instead, they seek to explain the *changes* they undergo.

¹² The chain might, of course, be one member long—i.e., the chain might include only *one* sustaining efficient cause. Still, a chain is a chain no matter how long!

¹³ A causal loop takes the form: x_1 causes x_2 , which causes x_3 , which causes x_4 , ... which causes x_1 . In such a case, x_1 indirectly causes itself, since x_1 causes something which causes something which... causes x_1 .

¹⁴ This "first" member is first in the sense of being the foundational, primary member that efficiently causally sustains the other members in the chain without *itself* being efficiently causally sustained. It need not be first in a *temporal* sense.

1.4 Dialectical Context

Having covered the families of classical theistic proofs we'll examine, let's turn to the *dialectical context* of such proofs. A dialectical context is the conversational environment or circumstances surrounding an argument, claim, or issue. Importantly, the dialectical context functions to set the burden(s) of proof for the various parties engaged in the conversation. What, then, is the dialectical context of our investigation?

In most chapters, the context is one wherein the classical theist is aiming to give a *positive demonstration* of the classical theistic God's existence. As such, the burden is on the classical theist to provide those who do not already accept their premises with *reasons* or *justification* for accepting those premises.

In light of this, several notes about the success conditions of arguments are in order. Suppose that the success of the classical theist's argument requires ruling out some thesis T. There are several reasons why classical theists might not succeed in ruling out T. For example, the classical theists might assume $\sim T$ without providing adequate justification; or the classical theist's proffered justification for $\sim T$ might rest on the truth of the conclusion of the classical theist's argument; or $\sim T$ might conflict with other premises in the classical theist's argument; or what have you. If the classical theist does not succeed in ruling out T for one or more of these reasons, then the classical theist's argument will not be successful in convincing those who accept (or are agnostic about) the truth of T.¹⁵

Similarly, if the success of the classical theist's argument (or the truth or proposed justification of one of the argument's premises) assumes the truth of some thesis T, but the classical theist does not provide adequate justification for T, then the argument *itself* rests on an inadequately justified assumption. In that case, for those who don't already accept T, the argument will rightly be viewed as unsuccessful. Argumentation is dialectical, and so in order to succeed, an argument for classical theism should provide those who do not already accept the argument's premises some reason or justification to accept those premises—justification that does not rest on further assumptions or presuppositions which are left inadequately justified but which the classical theist's dialectical opponents do not accept.¹⁶ These dialectical points bridge nicely into two kinds of criticism one can level toward an argument: undercutting defeaters and rebutting defeaters.

As we'll understand it in our investigation, an *undercutting defeater* does not attempt to show a premise or assumption of an argument to be false. Instead, an undercutting defeater merely shows that a premise or assumption lacks adequate justification. Note that the justification here refers to the justification that the argument (and what's said on its behalf) offers to those who don't already accept the

¹⁵ Of course, we're not presently claiming that classical theists are guilty of the dialectical sins adumbrated here. Instead, the sins are used to illustrate the broader point about the dialectical efficacy of arguments.

¹⁶ For more on the nature, purpose, and success conditions of arguments, see Oppy (2015, 2021).

premise or assumption in question. To be sure, the *proponent* of the argument may be perfectly justified in accepting the premise or assumption. For example, a proponent of an argument for God's existence might reason as follows:

- (1) If God exists, then God exists.
- (2) God exists.
- (3) So, God exists.

The *proponent* of this argument may very well be justified in accepting its premises and hence its conclusion. The argument clearly fails, however, since it gives those who do not already accept God's existence no reason to abandon their position and come to believe in God. The question, then, is whether an argument—or, more accurately, an argument's premises and what is said on their behalf—provides those who *do not already accept the argument* (i.e., those who don't accept one or more of its premises or assumptions) sufficient reason or justification to change their mind and accept the argument. The purpose of an undercutting defeater, then, is to show that nothing within an argument (including what's said on behalf of the argument's premises) provides those who do not already accept one or more of the argument's premises or assumptions sufficient reason to change their minds.

By contrast, *rebutting defeaters* aim to show the actual or probable falsity of a premise or assumption. Our appraisal of classical theistic proofs will employ both rebutting and undercutting defeaters. Thus, there will be several occasions wherein we uncover an underlying assumption of a premise (or of the justification leveled on its behalf) and—instead of showing the premise to be false—argue that the premise is simply inadequately justified in the dialectical context at hand.

This is all worth emphasizing because the role of dialectical contexts in discussing arguments is misunderstood time and again. In the dialectical context of classical theistic proofs, the onus is *not* on *detractors* of the classical theist's premises to pinpoint some common ground between themselves and the classical theist that should convince the classical theist to give up one or more of the classical theist's premises. The *classical theist* is the one providing a *positive argument* for the God of classical theism. Thus, the *classical theist* needs to convince those who do not already accept one or more of the argument's premises to accept those premises. We are therefore well within our dialectical and epistemic rights to argue—in response to a classical theistic proof—that nothing the proponent says on behalf of some premise provides those who reject or are agnostic on the premise sufficient reason to abandon their position. Whether this point should convince the classical theist to think their view is false is irrelevant. The onus is not on the *detractor* of an argument to convince the *proponent* of the argument to give up their position, or to convince the proponent that the premise is false, or to appeal to common ground between the proponent and the detractor. All the detractor needs to do is to point out that nothing in the proponent's argument, and nothing said on behalf of the argument's premises, provides the detractor sufficient reason to *abandon* their position and *accept* the proponent's. Doing so *does not require* an appeal to common ground or showing

that the premise in question is false or even that the premise is unsupported by the *proponent's* lights. Perhaps we sound repetitive here, but we've learned from experience how often these points are missed. Making these points clear from the outset will, we hope, prevent both confusion and the sheer agony we experience when dialectical contexts are misunderstood and abused.

In summary, when a proponent presents an argument and justifications on behalf of its premises, the onus is *not* on the opponent to *positively justify* why one of the premises in the argument is false. Rather, the opponent need only point out that the argument and what is said on behalf of its premise(s) does not provide the opponent sufficient reason to accept the relevant premise(s). To be sure, the opponent *can* provide positive justification for the falsity of one or more premises. Doing so would constitute a *rebutting* defeater. But the opponent *need not* do so to mount a successful critique. At minimum, the opponent need only offer an *undercutting* defeater.

One final note about the dialectical context of classical theistic arguments is in order. Several classical theistic arguments—especially ones focused on explaining persistence—operate within a pre-relativistic conception of time. But there are several lessons that many metaphysicians and philosophers of religion have not yet taken from relativity.

Many philosophers, regardless of whether they personally endorse a tensed or tenseless theory of time, think of B-theory as the thesis that there's a plurality of three dimensional spaces that exist (tenselessly) at successive points of time. For example, in his introductory metaphysics textbook, Michael Loux describes B-theory as the view that "time is a dimension along with the three spatial dimensions; [time] is just another dimension in which things are spread out" (Loux 1998, p. 213). On the version of B-theory that Loux describes, time has an absolute existence apart from space, so that we might think of each instant of time, or each point laid out along the temporal dimension, as corresponding to an arrangement of objects in space. In that case, any two numerically distinct states of affairs are absolutely simultaneous just in case the two states of affairs exist together in one and the same three dimensional space. While B-theory is often thought to be supported by an orthodox (or Minkowskian) interpretation of relativity, the view described by Loux, or in a variety of other introductory metaphysics textbooks, is not compatible with orthodox relativity for at least two reasons.¹⁷

First, as Hermann Minkowski (1952, p. 75) wrote, in his interpretation of relativity, both space and time disappear as independent existences, so that we are left with a union of the two that is neither spatial nor temporal. Although the orthodox interpretation of relativity includes four dimensions, there is no temporal axis along which successive three dimensional spaces are located. Instead, the four dimensions

¹⁷The fact that the metaphysician's four-dimensionalism and the physicist's four-dimensionalism are distinct has sometimes led to philosophical errors. For example, while David Lewis's (1976) conception of time travel is explicitly described in four-dimensional terms, Lewis's view cannot be adapted to relativistic physics without heavy modifications (Daniels 2014).

are neutral between space and time and can only be interpreted as spatial or temporal from a given reference frame; moreover, the choice of a set of four axes is likewise determined by the adoption of a given reference frame. Since there are no three dimensional spaces located at distinct, successive times, orthodox relativity strictly forbids absolute simultaneity.

Second, to the extent that a time parameter appears in relativity, time should be understood as marked out along trajectories through spacetime (i.e., the so-called proper time). Again, any two states of affairs can be simultaneous only relative to a specific reference frame, since different states of relative motion will select different sets of states of affairs as simultaneous. Thus, while B-theory and the orthodox interpretation of relativity in some manner deflate the distinction between space and time, they do so for quite different reasons, and the formal structure and associated formal relations in terms of which relativistic spacetimes are expressed markedly differ from the formal structure and relations that many metaphysicians utilize to describe time or spacetime. To be sure, there are metaphysicians who try to identify various bits of the formal structure found in relativistic spacetimes with the formal structures mandated by the accounts of space or time dreamt up by metaphysicians. But whether any such identification is successful or even worthwhile remains controversial (Gilmore et al. 2016). Moreover, while B-theory includes an irreducible and absolute direction of time—as described by before/after relations—orthodox relativity does not itself include a direction of time. To the extent that a direction of time might appear in a metaphysical interpretation of relativity, the direction needs to be added by the metaphysician from without. To be sure, there are sophisticated versions of B-theory that *are* compatible with relativity, and some metaphysicians and philosophers of religion *have* learned the aforementioned lessons; however, misconceptions about relativity continue to abound outside of philosophy of physics. The literature on classical theistic arguments is no exception—something to which we’ll return in later chapters.

With all this in mind, note that some of our *responses* to classical theistic arguments will employ the pre-relativistic notion of time operative in said arguments. The reader shouldn’t take such responses as an *endorsement* of metaphysical views that deny relativity or interpret relativity in a non-orthodox fashion. Instead, the reader should understand our responses in the context of the following dilemma: either we assume a pre-relativistic understanding of time, or we don’t. If we *do*, then our responses that are couched within a pre-relativistic framework apply to the classical theistic arguments. If we *don’t*, then the classical theistic arguments that *assume* a pre-relativistic framework fail (or at least lack adequate justification). Again, we’ll have much more to say in later chapters about how relativity intersects with debates about persistence and arguments therefrom for classical theism. For now, we include this note to clarify and situate our ensuing critical appraisal of classical theistic proofs.

1.5 Conclusion

To set the stage for our investigation into classical theistic proofs, we explored key background concepts like change, classical theism, neo-classical theism, intrinsic-ity, and extrinsicity. Finally, we covered the dialectical context of classical theistic proofs. The first classical theistic proof we'll consider, Aquinas's First Way, is the subject of the next chapter. Will its potential to demonstrate the classical theistic God's existence be actualized?

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Chapter 2

Aquinas's First Way



2.1 Introduction

Cosmological arguments reason from some very general feature of reality—e.g., contingency, causal dependence, or change—to the existence of some ultimate explanation, cause, or ground of that feature of reality. This explanation, cause, or ground is then identified with God.

Some of the most influential cosmological arguments for the God of classical theism focus in particular on *change*. Such arguments trace their intellectual heritage at least back to Aristotle, whose classic statement of the argument from change is found in book 8 of his *Physics* and book 12 of his *Metaphysics*. The basic form of reasoning—from the reality of change to the existence of an unmoved mover—has been reformulated, refined, and expanded by many philosophers within the Aristotelian tradition. For example, Maimonides (1995) articulates and defends a version of the argument in *The Guide of the Perplexed* (Bk. 2, ch. 1). Arguments from change, moreover, are not mere historical artifacts; they've enjoyed something of a revival of interest among philosophers of religion as of late.¹

Most notable for our purposes is medieval philosopher and theologian Thomas Aquinas's treatment of the argument from change in his famous First Way, found in both the *Summa Theologiae* (I, q2 a3) and *Summa Contra Gentiles* (I, ch. 13). We will focus in particular on one contemporary formulation of Aquinas's First Way from McNabb and DeVito (2020). We begin our investigation into classical theistic proofs with the First Way in part because it is a historical precedent to the Aristotelian proof, which we take up in Chap. 3. Defenders of both arguments aim to demonstrate the existence of an unactualized actualizer that is the purely actual source of

¹ See especially Feser (2011, 2017, 2020, 2021), Oppy (2006), Oberle (2022), McNabb and DeVito (2020), Davies (2016), Smart and Haldane (2003), Oderberg (2010), and Martin (1997) for some recent treatments. The wide-ranging atheological works of Oppy (2006) and Sobel (2003) also provide treatments, with various aspects of the debate blossoming in later years.

all change. By understanding the problems afflicting the First Way, we can set the stage for parallel problems that will afflict the Aristotelian proof.

For this chapter, we begin by examining just one of Oppy's (2006) criticisms of the First Way and, more importantly, McNabb and DeVito's (2020) response thereto. Oppy's criticism and McNabb and DeVito's response thereto lay the groundwork for new criticisms of our own. Before examining Oppy's criticism, though, we need a clear understanding of the First Way itself as originally formulated by Aquinas.

Aquinas famously offered five arguments or ways to establish God's existence. Here's how Aquinas (2022) begins his First Way:

It is certain, and obvious to the senses, that in this world some things are moved. But everything that is moved is moved by another. For nothing is moved except insofar as it is in potentiality with respect to that actuality toward which it is moved, whereas something effects movement insofar as it is in actuality in a relevant respect. After all, to effect movement (*movere*) is just to lead something from potentiality into actuality. But a thing cannot be led from potentiality into actuality except through some being that is in actuality in a relevant respect; for example, something that is hot in actuality—say, a fire—makes a piece of wood, which is hot in potentiality, to be hot in actuality, and it thereby moves and alters the piece of wood. But it is impossible for something to be simultaneously in potentiality and in actuality with respect to [the] same thing; rather, it can be in potentiality and in actuality only with respect to different things. For what is hot in actuality cannot simultaneously be hot in potentiality; rather, it is cold in potentiality. (*Summa Theologiae* I, q2 a3)

For Aquinas, as with Aristotle, the word translated as “movement” refers not just to *spatial* motion but to *change* more generally, that is, the actualization of a potential. For that reason, an object that (for example) changes color while remaining at absolute rest would—according to Aristotle and Aquinas—be undergoing movement. In any case, from the nature of movement or change, Aquinas concludes that nothing changes itself; instead, all things that change must be changed by another:

Therefore, it is impossible that something should be both mover and moved in the same way and with respect to the same thing, or, in other words, that something should move itself. Therefore, everything that is moved must be moved by another. (*Summa Theologiae* I, q2 a3)

For Aquinas, the resultant series of changers (and things changed) cannot involve infinitely many members:

If, then, that by which something is moved is itself moved, then it, too, must be moved by another, and that other by still another. But this does not go on to infinity. For if it did, then there would not be any first mover and, as a result, none of the others would effect movement, either. For secondary mover effect movement only because they are being moved by a first mover, just as a stick does not effect movement except because it is being moved by a hand. (*Summa Theologiae* I, q2 a3)

Aquinas thereby concludes to a First Mover (or First Changer), that is, some entity that produces change without itself undergoing change:

Therefore, one has to arrive at some first mover that is not being moved by anything. And this is what everyone takes to be a God. (*Summa Theologiae* I, q2 a3)

Readers today will likely object that a “first a mover that is not moved by anything” is decidedly *not* “what everyone takes to be a God.” In context, however, Aquinas

did not think so either; Aquinas later provides additional arguments for the conclusion that the First Mover has the various attributes classical theists associate with God. We can distinguish, at this juncture, between the first and second stages in any cosmological argument. For Aquinas's First Way, the first stage endeavors to establish that there is a First Mover, while the second stage endeavors to establish that the First Mover has the various attributes that classical theists associate with God.

For clarification purposes, Aquinas's example of a stick being moved by a hand is worth reflecting upon. While some medieval philosophers and theologians thought that one could show, by way of reason, that the past must have had finite duration, Aquinas disagreed (Aquinas 1965). Aquinas distinguished between two kinds of causal series. First, there are essentially ordered causal series (i.e., series ordered *per se*), wherein each non-primary or non-first member of the series derives its causal power from another. For example, a stick might be moved by a hand, but the hand has causal power only by virtue of the agent that possesses that hand. Aquinas held that, in the case of a *per se* causal series, since every non-primary member of the series derives its causal power from another, no non-primary member of the series has causal power unless there is a primary member of the series whose causal power is not derived from another. In contrast, accidentally ordered causal series (i.e., series ordered *per accidens*) are series in which the causal power possessed by each member of the series is *not* derived from another. For example, consider the series of my maternal ancestors. My mother was (part of) the cause of my existence, and she owes her existence (in part) to her own mother. But my mother's causal power to give birth to me was not owed to her mother or to any other ancestor; she has the power *of herself*, in a "built-in" or underived manner. For Aquinas, the series of maternal ancestors, like all accidentally ordered series, does not require a first member, since each member in the series does not derive its causal power from the preceding members of the series.²

Finally, note that Aquinas—like all medieval philosophers and theologians—assumed that time is absolute, so that two numerically distinct entities could be

²Here's a more precise characterization of the distinction as applied specifically to chains of change. Chains of changes ordered *per se* are ones wherein the relevant causal power or property (e.g., the power to heat, the power to move, etc.) is wholly (concurrently) derivative in all secondary (non-fundamental) members of the chain. Such secondary members have the relevant causal power or property only derivatively and instrumentally; the secondary members do not possess the relevant causal power or property *of themselves* but merely *transmit* the causal power or property bestowed to them. They possess the causality of the series only inasmuch as (or only insofar as) they are granted that causal power or property from without. (Indeed, their very status as *causes* is *itself* caused, since their possession and bestowal of the relevant causal power is merely transmissive.) Thus, MacDonald writes that Aquinas "characterizes the distinction as being between causal series in which the posterior causes exercise their causal power solely in virtue of the power of a prior cause [or causes] (those ordered *per se*) and those in which the posterior causes exercise their own proper causal power (those ordered *per accidens*)" (1965, p. 141). In similar fashion, Williams (2019) writes: "In an accidentally ordered series, the fact that a given member of that series is itself caused is accidental to that member's own causal activity... In an essentially ordered series, by contrast, the causal activity of later members of the series depends essentially on the causal activity of earlier members." *Per se* chains are also called *hierarchical* chains, while *per accidens* chains are also called *linear* chains.

absolutely simultaneous by occupying one and the same time. For Aquinas, the hand that moves the stick can occupy one and the same time as the stick. For that reason, the members of a *per se* causal series can all be mutually simultaneous with one another.

2.2 Validity

With all this background in hand, we can turn to Graham Oppy's reconstruction and criticism of Aquinas's First Way. Oppy's reconstruction proceeds as follows:

1. Some things are in a process of change.
2. Whatever is in a process of change is being changed by something else.
3. An infinite regress of changers, each changed by another, is impossible.
4. (Hence) There is a first cause of change, not itself in a process of change. (Oppy 2006, p. 103)

Oppy argues that this reconstruction is invalid. Premise (1) describes the fact that some things are in a process of change and premise (2) states a general principle about changes, namely, that all changes are caused from without. (1) and (2) are consistent with the existence of two or more independent causal series. Premise (3) describes a general principle about causal series; any causal series must be finitely long, and so each causal series must have a first member. But one cannot reach (4) from (1)–(3)—one cannot conclude that each causal series *shares the same first member*. From the fact that each chain of change has a first member that causes the relevant changes in its particular series, it clearly doesn't follow that there is a first cause for all chains of change. Moreover, nothing in (1)–(3) tells us whether the first member of any given causal series is itself *completely changeless*. Consequently, there is nothing within the premises that warrants the inference to a *unique* first cause of *all* change which is itself utterly *changeless*.

As McNabb and DeVito point out, however, Oppy's reconstruction is inadequate in light of Aquinas's writings:

Oppy is right ... that the *Summa Theologica* lacks a phrase which explicitly addresses that the first cause must itself be changeless, [but] Aquinas clearly implies it. For Aquinas, 'whatever is in motion must be put in [motion] by another,' and since postulating an infinite amount of instrumental causes does little to help us understand the ultimate grounding of hierarchical causation (see Aquinas' stick example), what are we left with? Given that there is motion, we seem to be left with the need for postulating a cause that has not been put into motion by another. (2022, p. 724)

Following Thomist scholar Brian Davies (as well as Aquinas's exposition of the argument in the *Summa Contra Gentiles*), McNabb and DeVito offer an alternative,

more faithful presentation of Aquinas's First Way.³ They quote the full syllogized version of Davies's formulation found in Davies (2016, p. 37). The premise that McNabb and DeVito add to Oppy's formulation derives from Aquinas himself: "This mover is itself either moved or not moved" (Aquinas 1965, p. 86). Here, then, is the argument:

1. Some things are in a process of change.
 2. Whatever is in a process of change is being changed by something else.
 3. What moves something else is either moved or not moved.
 4. An infinite regress of changers, each changed by another, is impossible.
 5. (Hence) There is a first cause of change, not itself in a process of change.
- (McNabb and DeVito 2020, p. 725)

This formulation does avoid Oppy's invalidity charge, but only under specific interpretations of the conclusion and premise (4)—interpretations that McNabb and DeVito neither clarify nor make explicit. In particular, the conclusion follows *only if* both of the following hold:

- (a) We interpret the conclusion as saying <there is *at least one* first cause of *at least some* changes, not itself in a process of change>; and
- (b) Premise (4) is interpreted as denying the possibility of the following conjunction: (b.i) every first member in every per se chain of change is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus, and (b.ii) every first member in every per accidens chain of change is changed in *some* manner, whether in a per se or per accidens series.

In Sect. 2.2.1, we will establish that the conclusion follows only if (a) and (b) are met. In Sect. 2.2.2, we will explain why this is problematic for the First Way.

2.2.1 Reliance on (a) and (b)

Let's begin with (a)—i.e., that McNabb and DeVito's conclusion expresses that <there is *at least one* first cause of *at least some* changes, not itself in a process of change>. At first glance, McNabb and DeVito seemingly want to infer a *single* or

³Henceforth, we'll speak simply of "Aquinas's First Way" or "the First Way," but note that we mean a *contemporary formulation thereof*—namely, the formulation that we're about to articulate from McNabb and DeVito (2020). To be sure, there are interpretations of Aquinas's First Way that differ from those in McNabb and DeVito's paper (cf. Kerr (2022), Wippel (2000, chs. XI and XII), and Joseph Owens's chapters on the first way in Catán (1980, chs. 6–9)). But these are not our concern in this chapter; we are concerned only with the formulation of McNabb and DeVito (whose reading of the First Way is deeply similar to Oppy's (2006), Davies's (2016), Oderberg's (2010), and countless more besides). We do not take a stance on the *correct* interpretation of Aquinas's own reasoning.

unique first cause of change *as such*. *Prima facie*, this is why McNabb and DeVito say that there is a first cause of *change* and not merely one instance of change or one connected chain or series of changes.⁴ However, the claim that there is a single first cause of change *as such* is not entailed by McNabb and DeVito's premises. The denial of infinitely regressing chains of change ordered *per se* (captured in premise (4)) only implies that for each *per se* chain of changes, that particular chain is not infinite. In other words, for each chain of *per se* changes *C*, there is at least one first member *T* of *C* which causes the relevant changes within *C* but is not caused to change in the relevant respect.

But this claim is silent on whether there is *one* first member for *all* *per se* chains of change. One cannot conclude, from the claim that each *per se* chain has a first member, that there is a *single* first member *T* for *all* chains of *per se* changes. To suppose otherwise would be to commit a quantifier shift fallacy. Just as one cannot conclude that there is a counselor for all students (i.e., $\exists x \forall y Cxy$) from the fact that for each such student, he or she has a counselor (i.e., $\forall y \exists x Cxy$), one likewise cannot conclude that there is a first cause of all chains of changes from the fact that each such chain has a first cause.

Furthermore, even if we *could* conclude that there's a first member *T* for all chains of *per se* chains, we cannot thereby conclude that *T* is the *single* or *unique* first member for such chains. Indeed, even if a given *per se* chain cannot be infinite, it doesn't thereby follow that the chain has a *single* terminus. The chain may terminate in two things, each of which imparts causal or change-related power to the rest of the chain. In that case, we avoid an infinite *per se* chain of causes/changes, but there nevertheless wouldn't be a *unique* source or terminus of any particular chain. So, even if the quantifier shift problem weren't present, uniqueness still wouldn't follow.

For these reasons, premise (4), in conjunction with the other premises, does not warrant the inference to a *unique* source of *all* change, but only the inference that each distinct chain of changes has at minimum one first member of that particular

⁴A few notes. First, we use "chain" and "series" interchangeably to refer, roughly, to a connected order of movers and things moved in respect of a particular causal power or property (e.g., the power to heat). Second, we do not claim that McNabb and DeVito *do* in fact wish to derive this, since justifying such a claim would require access to their private intentions—something we don't have. However, note that they *are* responding to Oppy's criticism here—and in said criticism, Oppy explicitly raises the difficulty of uniqueness: "There is nothing in the premises of this argument that justifies drawing the conclusion that there is a unique first cause of change that is not itself in a process of change" (2006, p. 103). Moreover, they also consider an objection to the First Way that attacks the notion of universal divine causation of *all* changes that occur. Tellingly, they do *not* respond to this objection by arguing that this was not established by the First Way, or that they did not intend to establish this; instead, they seek other avenues of response.

chain. This is a far cry from a unique, purely actual source of all change.^{5,6} Thus, McNabb and DeVito's conclusion that there's a changeless first cause of change follows only if (a) is true—i.e., only if McNabb and DeVito's conclusion expresses that <there is *at least one* first cause of *at least some* changes, not itself in a process of change>.

But the validity of McNabb and DeVito's argument also requires (b)—i.e., that premise (4) is interpreted as denying the possibility of the conjunction of (b.i) and (b.ii) as articulated earlier. For *only then* can we infer that at least one first cause of at least some per se chain of changes *is not itself in any process of change*. Allow us to explain.

To begin, imagine that premise (4) is *only* ruling out the possibility of infinite per se chains of change. One might be tempted to think that this alone is enough to deliver at least one first cause of change that is itself not in *any* process of change. The reasoning seems simple: an infinite per se chain of changes is impossible; hence, each such chain has at least one first member. Call one such first member M. Now, if M were moved, then M would no longer be the *first* member, as there would be some prior mover of M. But we've supposed, *ex hypothesi*, that M is the first member. So, M is not moved—*simpliciter*, full stop, in any respect whatsoever. So, an utterly unmoved mover—i.e., a first cause not itself in *any* process of change—is secured. Or so the reasoning goes.

But this reasoning is mistaken. For the finitude of per se chains only justifies an inference to at least one first member of a given series which is *not being moved in respect of the causal power or property of that particular series* (like the power to heat or spatially move, say). This is because not all changes are situated within a *single* per se series. For instance, when the stone is moved by the stick, in turn moved by the hand, in turn moved by the mind (which is the source of the motive causal power in this particular series), the causal power of the series—the power of

⁵A purely actual, unchangeable source of all change is arguably what Aquinas took his argument to establish. As Michael Augros points out, “When Aquinas at the end of the First Way reaches a first mover, which is moved by no other, he concludes ‘et hoc omnes intelligunt Deum.’ Who are ‘omnes’? Chiefly the learned, among both Christians and non-Christians. The learned among the Christians know that God alone is the first source of motion and change, the initiator of all changeable things, and that he does not change” (2022, p. 99). And again: “Now the First Way proves the existence of an unmoved mover, which is a principle of change in all things, ... giving them their agency and receiving its agency from none (or at least not by means of a change)” (2007, p. 100). And David Twetten: “When ‘motion’ is taken in this universal sense [i.e., the actualization of potential], then, the subsequent proof will conclude to a first mover that is unmoved in the sense of having no potency for further actuality... [T]he proof concludes to a mover ‘unmoved’ in the sense of ‘not further reduced or reducible from potency into act’” (1996, p. 268). And Aquinas himself in the *Summa Contra Gentiles* (I, ch. 13): “Therefore it is necessary to suppose that there is some primary unmovable mover” (translated in MacDonald 1991, p. 210).

⁶The criticisms we've raised here do not solely apply to the argument reconstructed from McNabb and DeVito. For instance, our criticisms equally apply to Oderberg (2010, p. 43), whose articulation proceeds: (i) Everything that is changing is being changed by something else; (ii) but the series of changers and things changing cannot be infinitely long; therefore, (iii) there must be a first cause of all change, i.e., God.

initiating or maintaining or bringing-about-in-something-else spatial motion—is unrelated to the causal power of the series of the water heated by the pot, in turn heated by the stove, in turn heated by the fire (which is the source of the causal property of this particular series, viz. heat). Each series is a completely different per se chain of changes with completely different causal powers/properties that secondary members derive from their respective first members. Moreover, each per se chain is finite, so that each begins with a first member enjoying underived or “built-in” causal power that it lends to the non-first members. But neither of the first members (the mind and the fire, respectively) are unmoved in *all respects whatsoever*. Importantly, this doesn’t detract from their status as first members of their respective chains. Their status as such would only be compromised if they *derived* the relevant causal power or property from without. They could easily be moved or actualized in *other* respects that have nothing to do with their status as the underived causal source of the motion/change of their respective series. Suppose, for instance, that the water-pot-stove-fire apparatus is small and portable, and suppose that someone carries the whole apparatus across the kitchen. In this case, the fire is unmoved in respect of the causal power of the series for which the fire serves as terminus, but the fire is *not* unmoved in all respects whatsoever. For the fire is moved or actualized in a different respect—to wit, spatial motion.

Consequently, the “simple reasoning” we discussed earlier is too simple. The first member’s status as first (in a given per se chain) is *not* compromised by the mere fact that the first member is moved. For the first member could easily be moved in respects that are *irrelevant* to the causal power or property of the series S for which that member is first. And this is perfectly compatible with the first member’s having built-in/non-instrumental/underived power in respect of the causal power of S. In short, something can be an unmoved mover in *one* respect but moved in whole swathes of *other* respects.

We’ll return to these issues in the subsequent section, since—as we’ll argue—they undergird a host of non-sequiturs afflicting the First Way. The key takeaway for now is that the first member of a given per se chain need not be unmoved in all respects whatsoever.⁷ And this, in turn, bars the inference to a first mover that is unmoved in *all respects whatsoever* (based solely on the First Way, that is). For all the First Way shows—and for all McNabb and DeVito say on its behalf—all per se chains of change could be finite even while each first member of each per se chain

⁷Other commentators on the First Way explicitly recognize this, too. Kerr (2012, p. 546), for instance, recognizes that different per se chains with different causal properties can and do terminate in different first members (members with the causal power or property of that series in an underived manner). He gives the example of the mind’s being first (and thus unmoved) in respect of the causal power of the mind-hand-stick-stone series but nevertheless *moved* (and hence secondary) in respect of *other* properties and powers in *other* ordered series of change. Aquinas himself seems to recognize this too, albeit in a different context: “Therefore, the man of himself is the primary mover, and he moves the stone through several intermediaries” (*In libros Physicorum* 8.9, translated in MacDonald 1991, p. 147). Again, we’ll argue that this recognition underwrites several non-sequiturs afflicting the First Way.

is moved (or even *possibly* moved) in some *other* respect—a respect that locates them as *non-first* in a *different* per se chain.

From all the preceding, it follows that—if we imagine that premise (4) is restricted *only* to ruling out the possibility of infinite per se chains of change—McNabb and DeVito’s conclusion that <there is a first cause of change that is not itself in *any* process of change> doesn’t follow. For, again, given all the preceding, it is entirely consistent to suppose that all of the following are satisfied:

- (b.i) every first member in every per se chain of change is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus;
- (b.ii) every first member in every per accidens chain of change is changed in *some* manner, whether in a per se or per accidens series;
- (b.iii) each per se chain of change is finite (per the imagined restriction on premise (4));
- (b.iv) some things are changing (per premise (1));
- (b.v) whatever is changing is changed by another (per premise (2)); and
- (b.vi) whatever moves another is either moved or unmoved (per premise (3)).

And yet the conjunction of (b.i)–(b.vi) is incompatible with McNabb and DeVito’s conclusion that there is a first cause of change that is not itself in any process of change.⁸ So, it is entirely consistent to suppose that all of the premises in McNabb and DeVito’s argument are true while its conclusion is false *if* premise (4) is imagined *only* to rule out the possibility of infinite per se chains of change. Hence, McNabb and DeVito’s argument is invalid *if* premise (4) is restricted in this manner.

To reach McNabb and DeVito’s conclusion, then, premise (4) needs to rule out *more* than the possibility of infinite per se chains of change. In particular, it needs to rule out any possibility under which both (b.i) and (b.ii) are true. This, in turn, establishes our contention that the validity of McNabb and DeVito’s conclusion requires premise (4) to be interpreted in the manner specified in (b).

2.2.2 Why This Reliance Is Problematic*

What we learned from the preceding is that, provided we understand the conclusion according to (a) and premise (4) according to (b), McNabb and DeVito’s argument is valid. But here’s the rub: when premise (4) is understood according to (b), premise (4) is unmotivated, and when the conclusion is understood according to (a), the conclusion lends little to no support whatsoever to classical theism. We shall justify each of these claims in turn.

⁸Here’s why: a first cause of change must be first in either a per se or per accidens series of change. But per (b.i), no first cause in a per se series of change is utterly changeless; and per (b.ii), no first cause in a per accidens series of change is utterly changeless. Hence, no first cause of change is utterly changeless given (b.i)–(b.vi).

2.2.2.1 First Claim

Consider the first claim: when premise (4) is understood according to (b), premise (4) is unmotivated. This is relatively straightforward, since nothing in McNabb and DeVito's argument, and furthermore nothing McNabb and DeVito say on its behalf, gives us any reason to deny the possibility of the conjunction of (b.i) and (b.ii).

It's important to see that (b.i) and (b.ii) are perfectly compatible with denying the possibility of infinite per se chains of change. Recall (b.i) and (b.ii):

- (b.i) every first member in every per se chain of change is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus;
- (b.ii) every first member in every per accidens chain of change is changed in *some* manner, whether in a per se or per accidens series;

Call any model (or scenario or situation) in which both (b.i) and (b.ii) are true a *Model*. Importantly, a *Model* is entirely compatible with the impossibility of infinite per se chains, and so merely ruling out (as McNabb and DeVito, as well as other defenders of the First Way, take themselves to have done) the possibility of infinite per se chains is not sufficient for ruling out the possibility of a *Model*. Consider the following series of *Models*:

M_1 : There are (say) three objects: O_1 , O_2 , and O_3 . O_1 has (at least) two powers: an active power A_{O_1} with respect to which O_1 enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_2 's passive power P_{O_2}), and a passive power P_{O_1} whose actualization O_1 can only derive from another.⁹

Likewise, O_2 has (at least) two powers: an active power A_{O_2} with respect to which O_2 enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_3 's passive power P_{O_3}), and a passive power P_{O_2} whose actualization O_2 can only derive from another.

Similarly, O_3 has (at least) two powers: an active power A_{O_3} with respect to which O_3 enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_1 's passive power P_{O_1}), and a passive power P_{O_3} whose actualization O_3 can only derive from another.

Furthermore, O_1 exercises A_{O_1} and thereby actualizes O_2 in respect of P_{O_2} ; O_2 exercises A_{O_2} and thereby actualizes O_3 in respect of P_{O_3} ; and, finally, O_3 exercises A_{O_3} and thereby actualizes O_1 in respect of P_{O_1} . The changes described

⁹By “actualized” (and its cognates) here and in the ensuing discussion, we mean *causally made to be actual* or *causally brought to actuality*. (So, an *unactualized* power does *not* mean an *unexercised* power; it means a power whose exercise is not causally brought to actuality by another.)

here—all of which are situated in per se chains—exhaust the changes that there are.¹⁰

Notice that, in M_1 , both (b.i) and (b.ii) are met. Regarding (b.i), every first member (O_1 , O_2 , or O_3 as the case may be) in every per se chain ($O_1 \rightarrow O_2$, $O_2 \rightarrow O_3$, or $O_3 \rightarrow O_1$ as the case may be) is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus. Regarding (b.ii), because there are no per accidens chains of change in M_1 , it trivially follows that every first member in every per accidens chain of change is changed in *some* manner. Nevertheless, there are no infinite per se chains of change; each per se chain of change has exactly two members, one primary and one secondary. Notice, further, that the numbers here are arbitrary; there could be more (or fewer) than three objects, with more than two powers each, linked in finite per se chains longer than two members. What matters is just the abstract structure of a circularly-arranged network of finitely many per se chains, each of which has finitely many members. Finally, notice that while the per se chains are circularly arranged, there is no vicious circular dependence here; the exercises of the members' powers don't link up in such a way that any member's exercise of power directly or indirectly depends on itself. Nor, we suppose, does an object's exercise of its active power presuppose the (metaphysically) prior actualization of its passive power. The circular arrangement, then, doesn't track circular *dependence*.

Consider a second *Model*:

M_2 : Object O_1 has (at least) two powers: an active power A_{O_1} with respect to which O_1 enjoys “built-in” and unactualized power, and a passive power P_{O_1} whose actualization O_1 can only derive from another.

Object O_2 has (at least) two powers: an active power A_{O_2} with respect to which O_2 enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_1 's passive power P_{O_1}), and a passive power P_{O_2} whose actualization O_2 can only derive from another.

Object O_3 has (at least) two powers: an active power A_{O_3} with respect to which O_3 enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_2 's passive power P_{O_2}), and a passive power P_{O_3} whose actualization O_3 can only derive from another.

And so on *ad infinitum* (through O_4 , O_5 , O_6 , ...). More generally, for every positive integer n , object O_n has (at least) two powers: an active power A_{O_n} with respect to which O_n enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of $O_{(n-1)}$'s passive power $P_{O_{(n-1)}}$), and a passive power P_{O_n} whose actualization O_n can only derive from another. The changes described here—all of which are situated in per se chains—exhaust the changes that there are.¹¹

¹⁰ Though, it's easy to supplement the story with per accidens chains of change without altering the formal features M_1 is meant to illustrate.

¹¹ Again, it's easy to supplement the story with per accidens chains of change without altering the formal features M_2 is meant to illustrate.

Notice that, in M_2 , both (b.i) and (b.ii) are met. Regarding (b.i), each first member of each per se chain is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus. Regarding (b.ii), because there are no per accidens chains of change in M_2 , it trivially follows that every first member in every per accidens chain of change is changed in *some* manner. Nevertheless, there are no infinite per se chains of change; each per se chain of change has exactly two members, one primary and one secondary. While there are infinitely many distinct per se chains, each such chain only has two members. Hence, there is no infinite per se chain in M_2 . Notice, further, that the numbers here are arbitrary; there could be more than two objects, each of which enjoys more than two powers, linked in each finite per se chain. What matters is just the abstract structure of a network of infinitely many per se chains, each of which has finitely many members.

Consider now a third *Model*:

M_3 : Object O_{1A} has (at least) two powers: an active power $A_{O_{1A}}$ with respect to which O_{1A} enjoys “built-in” and unactualized power, and a passive power $P_{O_{1A}}$ whose actualization O_{1A} can only derive from another. Object O_{1B} has (at least) two powers: an active power $A_{O_{1B}}$ with respect to which O_{1B} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{1A} ’s passive power $P_{O_{1A}}$), and a passive power $P_{O_{1B}}$ which is actualized from without—in particular, by object O_{2A} —in an accidentally ordered series.

Object O_{2A} has (at least) two powers: an active power $A_{O_{2A}}$ with respect to which O_{2A} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{1B} ’s passive power $P_{O_{1B}}$) and a passive power $P_{O_{2A}}$ whose actualization O_{2A} can only derive from another. Object O_{2B} has (at least) two powers: an active power $A_{O_{2B}}$ with respect to which O_{2B} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{2A} ’s passive power $P_{O_{2A}}$), and a passive power $P_{O_{2B}}$ which is actualized from without—in particular, by object O_{3A} —in an accidentally ordered series.

Object O_{3A} has (at least) two powers: an active power $A_{O_{3A}}$ with respect to which O_{3A} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{2B} ’s passive power $P_{O_{2B}}$) and a passive power $P_{O_{3A}}$ whose actualization O_{3A} can only derive from another. Object O_{3B} has (at least) two powers: an active power $A_{O_{3B}}$ with respect to which O_{3B} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{3A} ’s passive power $P_{O_{3A}}$), and a passive power $P_{O_{3B}}$ which is actualized from without—in particular, by object O_{4A} —in an accidentally ordered series.

And so on *ad infinitum* (through O_{4A} and O_{4B} , O_{5A} and O_{5B} , O_{6A} and O_{6B} , ...).

More generally, for every positive integer n , object O_{nA} has (at least) two powers: an active power A_{OnA} with respect to which O_{nA} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of $O_{(n-1)B}$ ’s passive power $P_{O(n-1)B}$, when $n-1$ is also a positive integer) and a passive power P_{OnA} whose actualization O_{nA} can only derive from another. Object O_{nB} has (at least) two powers: an active power A_{OnB} with respect to which O_{nB} enjoys “built-in” and unactualized power to initiate a certain sort of change (viz. the actualization of O_{nA} ’s passive power P_{OnA}), and a passive power P_{OnB} which is actualized from without—in particular, by object $O_{(n+1)A}$ —in an accidentally ordered series. The changes described here exhaust the changes that there are.

In M_3 , there are infinitely many per se chains of change, each of which has only two members: $O_{1B} \rightarrow O_{1A}$, $O_{2B} \rightarrow O_{2A}$, $O_{3B} \rightarrow O_{3A}$, $O_{4B} \rightarrow O_{4A}$, and so on *ad infinitum*—for every n , $O_{nB} \rightarrow O_{nA}$. Similarly, there are infinitely many per accidens chains of change, each of which has only two members: $O_{2A} \rightarrow O_{1B}$, $O_{3A} \rightarrow O_{2B}$, $O_{4A} \rightarrow O_{3B}$, $O_{5A} \rightarrow O_{4B}$, and so on *ad infinitum*—for every n , $O_{(n+1)A} \rightarrow O_{nB}$.

Notice that, in M_3 , both (b.i) and (b.ii) are met. Regarding (b.i), every first member (O_{1B} , O_{2B} , O_{3B} , etc.) in every per se chain ($O_{1B} \rightarrow O_{1A}$, $O_{2B} \rightarrow O_{2A}$, $O_{3B} \rightarrow O_{3A}$, etc.) is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus. Regarding (b.ii), every first member (O_{2A} , O_{3A} , O_{4A} , etc.) in every per accidens chain ($O_{2A} \rightarrow O_{1B}$, $O_{3A} \rightarrow O_{2B}$, $O_{4A} \rightarrow O_{3B}$, etc.) is changed in *some* manner. Nevertheless, there are no infinite per se chains of change; each per se chain of change has exactly two members, one primary and one secondary. Notice, further, that the precise details here are arbitrary. There could be more (or fewer) than two objects in each chain; there could be more powers (both active and passive) involved; the per accidens chains could be (say) $O_{(n+1)B} \rightarrow O_{nB}$ for every n or $O_{(n+1)A} \rightarrow O_{nA}$ for every n (or both); and so on.¹² What matters is just the abstract structure of infinitely many per se chains, each having only finitely many members and each being tied together by some per accidens chain or other.

We’ve canvassed just three abstract *Models* in which both (b.i) and (b.ii) are true, but there are many more besides. Moreover, the abstract structures can be concretely filled out in a panoply of ways. Our purpose in articulating such *Models* is to establish that there are whole swathes of seemingly perfectly consistent situations in which both (b.i) and (b.ii) hold true despite the fact that, in such scenarios, there

¹² In the case that the per accidens chains link all of the infinitely many O_{nA} ’s (or O_{nB} ’s) together in respect of a single causal property (e.g., *begetting* or *birthing*), the reason (b.ii) is satisfied would be different. In particular, (b.ii) would be satisfied because *there is no first member of any per accidens chain of change*, and hence—trivially—every first member in every per accidens chain is changed in some manner. Note, though, that the per accidens chains need not link all of the infinitely many O_{nA} ’s (or O_{nB} ’s) together; and even if they do, they need not link them together in respect of a single causal property (and hence need not create a single, infinitely long per accidens chain but could instead create infinitely many, finitely-long per accidens chains with different causal properties).

are no *per se* chains with infinitely many members. This, in turn, shows that McNabb and DeVito (as well as other defenders of the First Way who interpret it along similar lines) have *much more work to do* in establishing their conclusion that there is a first cause of change that is not itself in *any* process of change. Specifically, this conclusion, as we've seen, only follows if we can rule out *each* of M_1 , M_2 , M_3 , and any other *Model* as impossible. Since premise (4) is the only premise seemingly relevant to ruling out such *Models* as impossible, premise (4)—if the argument is to be valid—needs to be interpreted as denying the possibility of such *Models*. But, crucially, nothing in McNabb and DeVito's discussion of premise (4)—and, as far as we're aware, nothing in other First Way defenders' discussion of premise (4)—gives us any reason for denying the possibility of *Models*. Premise (4), then, is unmotivated, and the First Way is consequently undercut. This, in turn, establishes our first claim.

2.2.2.2 Second Claim

Let's now consider the second claim we leveled earlier. Recall the claim: if we understand the conclusion according to (a)—such that there is *at least one* first cause of *at least some* changes, not itself in a process of change—the conclusion now lends little to no support whatsoever to classical theism. For starters, as we hope to have shown in our discussion of premise (4) and (b), we have not yet arrived at something “not itself in a process of change.” Rather, we have only arrived at some entity E that is not (presently) moved in respect of the causal power or property of the series for which E serves as terminus. So, we've only concluded that at least one first cause of at least some changes exists. This is a far cry from a unique, purely actual source of *all* change. (We're setting aside worries about deriving divine attributes, to which we turn in Chap. 8.) This conclusion only delivers a world populated by disparate, mundane unmoved movers, e.g., fire, minds, etc., each of which has the built-in power to cause changes in their respective series of changes. Classical theism is very far off indeed.

But perhaps we can at least avoid the quantifier shift problem that initially led us to add the provisos “*at least one* first member” and “*at least some* changes.” And perhaps we can also infer that the unique first member must be *purely actual*. If the unique first member must be purely actual, then the first member of *one* *per se* chain could not possibly be non-first in a *different* *per se* chain—for if the first member *were* non-first in any *per se* chain of changes, then the first member would be *moved* or *actualized* in some respect; but a purely actual being cannot be moved or actualized in any respect. We consider this possible path forward in the next section.

2.3 A Path Forward?

Recall that—according to the First Way—per se chains must be finite because each subsequent member of a per se chain purely *derives* the relevant causal power from the other members of the chain. In order for the first member of the chain to halt an infinite regress, the first member must supply the causal power passed on to subsequent members of the chain. If the first member were purely derivatively actualized in the same respect as subsequent members in the chain, then the infinite regress would not be halted, and the first member would not be the origin of the relevant causal power after all. As we've argued, however, the first member of the chain might change in other respects and so might be a non-first member of a distinct per se chain.

At this juncture, some defenders of the First Way might simply concede that the First Way only arrives at a first member of *some* per se chain C, and so a first member that, in virtue of being the first member of C, does not change in the respect relevant for C. However, such defenders might proceed to argue as follows: (i) any such terminus of any given per se chain of changes would be *purely actual* (i.e., utterly unchangeable and cross-world-invariant in all respects); (ii) there can only be one purely actual being in principle; and so (iii) each such terminus of each such per se chain of changes is one and the same unique purely actual being from which all change derives. Let's call this dialectical avenue *Path*. Below, we offer criticisms of *Path*.

The first problem with *Path* lies in the distinction between y's being *unchanged* in the relevant respect and y's being *unchangeable* in the relevant respect. Allow us to unpack this by means of an example.

Consider one of the chains of changes we mentioned earlier: at time *t*, the noodles are heated by the water, in turn heated by the pot, in turn heated by the stove, in turn heated by the fire. Suppose further that this is a *per se* chain of changes, and that *per se* chains must terminate. *All we could conclude here* is that there's some entity E with the power to make the pot, stove, etc. hot at time *t* without actually deriving the power to make things hot at *t*. This says nothing about *other* causal powers E might have; it tells us nothing about whether E *can* (in some possible world) derive the causal power to make things hot but simply *does not in actuality* derive it; it tells us nothing about whether E has the causal power non-derivatively at *t* but fails to have the power non-derivatively at some *t'* distinct from *t*; and so on. Further, it tells us nothing about E being *fully, purely* actual. E could very well have potencies that simply have nothing to do with the relevant chain of changes in question, or potentials which are simply not right now reducing from potency to act, or what have you.

More generally, then, the first problem for *Path* is that *Path* fails to deliver that the being serving as the first member of some per se chain is unchangeable or unmovable even in respect of the causal power of the chain for which that being serves as the primary member. Although the fire may have the ability at *t* to impart heat to the series without *actually* having heat (or the power to heat) imparted to the

fire itself (and thereby move others to be heated without the fire being moved to be heated), the *metaphysical impossibility* that heat (or the power to heat) is imparted to the fire at *t* does not follow; and even if that did follow, it wouldn't follow that the same is true for times *distinct* from *t*.¹³ Hence, although the fire is unmoved at *t* in respect of the causal power of the series (viz. heat), the fire is not (thereby) unmoved at *t* in that respect. This is a problem for *Path*, since *Path* aims to infer something that is unchangeable or unmovable in the relevant respect, not merely *in fact unchanged* or *in fact unmoved* in that respect.

But let's suppose (contrary to what we've argued) that the First Way *could* establish that the first member of a given per se chain of changes has the relevant causal power in an unchangeable or unmovable or unactualizable manner—and not only at *t* (i.e., not only when the member is causing the series), but also at every other time at which the first member exists. Even then, this still wouldn't deliver a *purely* actual being (i.e., one that's unchangeable or unactualizable in *all* respects), since this would only entail that the terminus of the given per se chain of changes is unchangeable in respect of the causal power or property of *that* series. But this is perfectly compatible with such a being having *other* potentials, *unrelated* to the causal power of the series for which the being stands as terminus, that are simply not presently being actualized or are not required to be actualized for the being to serve as the terminus of the per se chain in question. This is the second problem, then, for *Path*.

One response that some Thomistic thinkers might level at this juncture is the principle *agere sequitur esse* (action follows being), “according to which what a thing *does* reflects what it *is*. If the first cause of things *exists* in a purely actual way, how could it *act* in a less than purely actual way?” (Feser 2017, p. 185). Elsewhere Feser articulates the principle as “the way a thing operates reflects its mode of existing” (2020).

¹³ *Objection.* The fire, in order to be first mover of the chain in respect of property/power P, must possess P *of itself*. But then it possesses P by its very *nature*, and hence it is not the sort of thing which could possibly lack P or derive P from without. *Reply.* First, it does not follow from S's possessing P *of itself* that P is *essential* to S. For all this objection shows, P may very well be a non-essential property or power of S which S has at *t* but which S does not derive from without at *t* (and hence—by our lights—has it “of itself” in the relevant sense, i.e., the sense required in order for S to serve as the underived source of P for the relevant chain(s) for which S serves as terminus). Just consider: the Earth holds other things aloft and is thereby “first” in a whole host of per se causal (or actualization-of-potential-related) chains. But it's still possible for the Earth to be held aloft if, say, a giant planet was placed “underneath” (or “above,” depending on how you look at it!) Earth. Second, even if S's having P of itself entailed that P is essential to S, this seems perfectly compatible with S having P non-derivatively in some worlds in which it exists but having P derivatively (or, at least, enjoying P in an *overdetermined* manner—both built-in *and* derived (or causally actualized)) in the other worlds in which S exists. After all, even fire with the built-in power to heat can still be heated by (say) another fire and transmit said heat to other things. In such a case, S is essentially P, and it's not possible for S to lack P. Nevertheless, S derives P in some worlds but not others. (Note that it's irrelevant whether the *Thomist* wouldn't grant our reply; we are not trying to *convince* the Thomist here. What matters in the present context is whether we've been given any reason to *abandon* our reply. The onus of justification here is on the *proponent* of the First Way to *positively show* that our reply is *mistaken*. We need not positively show it's true, or that the Thomist would grant our reply, or whatever. To suppose otherwise is to be gravely confused.)

As Feser thus explicates the principle, it would seem to be something like: if S exists F-wise, then S acts F-wise. Under the assumption that the terminus T of a given *per se* chain is *at least* unchangeable in respect of the causal power of the series in question, we could use the principle *agere sequitur esse* to infer that T would be unchangeable in every respect and hence purely actual *full stop*. For if T *existed* in a changeable manner, then T would *act* in a changeable manner. But, ex hypothesi, at least one of T's acts (the causal power or feature of the *per se* chain in question) is *not* changeable or actualizable. So, T *exists* in an unchangeable, unactualizable way. And—by a second application of *agere sequitur esse*—every one of T's acts would thereby be unchangeable and unactualizable, meaning T is purely actual full stop.

What to make of this riposte? First, it presupposes that the First Way has established that T has at least one unchangeable act. But as we've already seen, this has *not* been established. Second, the principle *agere sequitur esse* seems false, as it faces several counterexamples. Consider, for instance, the fact that no entity has control over whether that entity exists, for the entity would *already* have to exist in order to have and exert control over its own existence. So, all entities exist in a manner that is outside of their control. But some entities act in a way that is under their control. Another counterexample is that while God might *exist* in a necessary way, God does not *choose* in a necessary way; under classical theism, God is free to create or not, to perform a particular miracle or not, and so on. God's choice to perform a particular miracle is not necessary. (Even if one disagrees and claims that God's choice to create or perform a miracle *is* necessary, there's nothing incoherent *in principle* about a necessarily existent object that only contingently acts.) Overall, then, the appeal to *agere sequitur esse* is of no help here. (We discuss the principle *agere sequitur esse* in more detail in Sect. 3.6.1)

The third problem for *Path* runs as follows. Suppose we grant that the first and second problems we've raised fail and that we actually *can* establish that T is purely actual full stop. Even then, *Path* still fails, since there seems to be no problem in principle with there being more than one purely actual being.

Now, one defender of the First Way, Edward Feser, provides an argument for the uniqueness of a purely actual being, and the argument runs as follows. For there to be two (or more) purely actual beings, there must be a feature that differentiates the two of them. "But," writes Feser, "there could be such a differentiating feature only if a purely actual actualizer had some unactualized potential, which, being purely actual, it does not have" (2017, p. 36). By our lights, however, this argument fails. A differentiating feature could easily be some difference in *actual* features between things. An elephant, an amoeba, and a planet (e.g.) are distinguished by many features other than unrealized potentials. (Yes, they are also distinguished by different potentials, too. But this is perfectly compatible with our claim.) And while "having different actual features" entails that one being does not have a feature the other has, the mere *absence* of a feature does not entail potentially having that feature. For example, we don't have the feature *being made entirely of gold*, but we're not even potentially made entirely of gold.

Moreover, if successful, this line of argument seems inconsistent with trinitarian conceptions of God, according to which there is one God existing in three divine persons.¹⁴ For in order for there to be more than one divine person, there would have to be some feature that one had that the other(s) lacked, in which case—according to Feser's reasoning—at least one of the divine persons must have some unactualized potential. But this runs into trouble on two fronts. First, it's incompatible with such a person being *divine*. For God is by nature purely actual, and hence anything with the divine nature (including a divine person) would also be purely actual. Hence, if one such divine person has unactualized potential, that divine person would not be *divine* after all. Second, if one divine person has unactualized potential, then, since each divine person is in God, there exists unactualized potential in God. But then God isn't purely actual.

Overall, then, *Path* fails on at least three fronts, and thus the original criticisms leveled towards the First Way retain their teeth.¹⁵ We've also seen several additional problems for the First Way in its inference to the pure actuality of the unmoved mover or unactualized actualizer. We turn next to a further problem for the First Way.

2.4 Mind the Gap

In the context of cosmological arguments for God's existence, the *Gap Problem* refers to the (actual or purported) difficulty in bridging the gap from the being arrived at in the first stage (an unmoved mover, say) to *God*. We think the Gap Problem is particularly poignant for the First Way, since its defenders typically aim to demonstrate not merely *God's* existence but the *classical theistic* God's existence. With this in mind, we present another problem for the First Way: the First Way is categorically insufficient to establish the classical theistic God's existence as opposed to the *neo-classical theistic* God's existence (or even the existence of a non-theistic necessary being). Allow us to explain.

¹⁴While this is not an objection *per se* to the inference (since the objection relies on a Christian doctrine), the objection is valuable to uncover. To the extent that one finds trinitarianism plausible (or even rationally defensible), one thereby has *pro tanto* reason to reject (or doubt) the inference. Also, you might object that Feser can simply restrict his principle to *beings*, thereby avoiding problematic application to *divine persons*. But this response fails, since any reason favoring the principle as applied to *beings* also favors the principle (or a near-identical principle) as applied to *persons*. Thus, if one accepts the former, one should also accept the latter, and hence our criticism stands.

¹⁵Another avenue some take at this stage in the dialectic is to appeal to the real distinction in the beings of our experience between essence and existence (*esse*). In particular, some might propose that any admixture of act and potency is an essence-existence composite, and any essence-existence composite derives its being from the causal activity of something in which essence and existence are identical. But this response makes the First Way parasitic on Aquinas's *De Ente* argument for God's existence from essence-existence composition. (Remember that we're targeting McNabb and DeVito's formulation of the First Way, which is a distinct argument from the *De Ente* argument.) Thus, to pursue this dialectical avenue is to grant that the First Way fails as an independent argument for God's existence. And showing this is our sole purpose in this chapter. (Note, further, that we address Feser's rendition of the argument from essence-existence composition—the Thomistic proof—in Chap. 11. We also address the *De Ente* argument as defended by Nemes and Kerr in Sect. 7.3.8.)

Ignoring all the previously articulated problems for the First Way, we are entitled at most to infer the existence of a purely actual source of all change. But—crucially—this is perfectly compatible with neo-classical theism. For according to neo-classical theism, God is a metaphysically necessary being. God cannot fail to exist, and nor can God begin or cease to exist. God is necessarily actually existent. While God has potentialities, these are not potentialities for ceasing, beginning, or failing to exist; they are merely potentialities for *accidental* change, as opposed to substantial change wherein the substance itself comes into or goes out of existence.

What this means is that the neo-classical theistic God's essence or nature is *purely actual*. For suppose that God's essence or nature has some potential for change. Then God could cease to exist. Essential properties are (at least minimally) those properties without which a substance cannot exist. Thus, if a substance loses, acquires, or alters its essential properties, then that substance will cease to exist. In other words, if a substance's essential properties change, then the substance in question ceases to exist. So, if God's essence or nature had potential for change, then God could cease to exist. But God—under neo-classical theism—cannot cease to exist. Hence, under neo-classical theism, God's essence or nature has no potential for change.¹⁶ Hence, God's essence or nature is unchangeable. Furthermore, God's essence has no potential to be actualized by another or to be absent from reality altogether, since God's essence or nature is not caused by anything else, and furthermore it necessarily exists. Consequently, the neo-classical theistic God's essence or nature is *purely actual*—it has no potencies, whether potencies for change, cross-world variance, non-existence, or for being brought to actuality. The same reasoning holds true for any necessarily existent, essentially independent substance regardless of whether that substance is divine.

What this means is that neo-classical theism is *perfectly compatible* with the existence of a purely actual source of all change. Even though the essence or nature of the God of neo-classical theism would be purely actual, the God of neo-classical theism may still undergo change; for example, God may go from *not* creating to *creating*. This sort of change must simply be an *accidental* change. Further, under neo-classical theism, God's essence or nature could be the ultimate source or explanation of all change: God's accidental changes could easily be explained, ultimately, in terms of God's perfect nature (e.g., in terms of God's goodness, or God's love, or God's necessary and essential reasons, or certain rational structures that are built into the fabric of God's being (as it were), or whatever). And the changes within *created* reality could be ultimately traced back to God's creative activity—which, as we've just seen, could easily be explained (at least partly) in terms of God's nature or essential properties. Thus, *even under neo-classical theism*, all changes can ultimately be sourced in something purely actual: God's essence or nature. Similar reasoning equally applies to the essence or nature of a foundational, ultimate, necessary being in (certain) non-theistic worldviews, too.

¹⁶Likewise, since God is a *necessary* being, God's essence has no potential to vary across worlds. (One might be tempted to appeal to *De Ente* style reasoning to argue that the neo-classical God's nature or essence must stand in potency to the neo-classical God's act of existence or an extrinsic cause. As explained in the previous footnote, however, this is a perilous move, for it renders the First Way parasitic on the *De Ente* argument and its eminently deniable metaphysical assumptions. And even setting aside potencies for existence, the criticism at hand still illustrates that the inference from an unchangeable source of all change to an unchangeable *being* is a non-sequitur.)

The First Way therefore faces a serious problem: it is unable to establish the existence of a purely actual *being* or *substance*. For even under neo-classical theism—on which God has various potencies for accidental change—there could be a purely actual source of all change (to wit, God's essence or nature). The same can hold for non-theistic views that embrace the existence of a foundational metaphysically necessary being. Such non-classical theistic views are perfectly compatible with all the premises of the First Way: the denial of infinite per se chains of changes is preserved; the principle that whatever is moving or changing is moved or changed by another (in the sense of being *actualized* by another), since all changes are either actualized by God's creative act or (in the case of God's accidental changes) God's nature (perhaps together with God *qua* agent); and so on.¹⁷

By our lights, this is a formidable challenge to the First Way. Before moving to the next section, though, we wish to address three objections to the challenge.

2.4.1 *Objection One*

One might object that, on *any* metaphysics that features real essences, all things with real essences cannot change their essences or essential properties and so would be purely actual in the sense we've articulated. For instance, given that S is essentially human, S cannot gain or lose S's humanity. In that sense, S's essence or essential properties are purely actual, with no potential to be gained or lost.

We have two responses. First, this objection crucially ignores *potentials for ceasing to exist*, *potentials for being absent from reality altogether*, and *potentials for existing that are actualized by some cause*. For while S's essence or essential properties may not have the potential to *change*, S's essence or essential properties most definitely have potentials to *cease to exist*.¹⁸ S's properties, one might think, cannot

¹⁷ One *could* hold that God's nature (efficiently) *causally* actualizes God's accidental changes. Or one could hold that they *non-causally* actualize them. Or one could hold that *God* causally actualizes God's accidental changes, and that God's causally actualizing God's accidental changes is *itself* caused (or perhaps non-causally explained) by God's nature (e.g., God's perfection, or God's essentially possessed reasons, or whatever). Importantly, even if God's nature doesn't *causally* actualize God's accidental changes, it still plausibly *actualizes* God's accidental changes in the sense of being a metaphysically prior condition that explains the actualization of the relevant potentials. (If the principle at play in the First Way—that whatever is changed is changed by another—explicitly requires something to (efficiently) *cause* a change rather than simply to *explain* (whether causally or non-causally) a change, then this renders the First Way's principle deeply implausible—at least by our lights. We see no reason whatsoever to demand that every change is *caused* over demanding that every change is simply *explained*. And in any case, as we've explained, one need not suppose that God's accidental changes are non-causally explained.) *Mutatis mutandis* for non-theistic views of a necessary but changeable foundational reality.

¹⁸ A complication arises here concerning such potentials. We postpone discussion of this complication until Chap. 4. For now, we can simply understand the "potential" in question as *either* a dispositional feature of something *or*—and this is important—a *possibility* (without this possibility having to be some inherent dispositional feature of the entity in question).

float free from S, and so once S ceases to exist, S's essential properties likewise do.¹⁹ Thus, S's essence and essential properties are not, after all, purely actual—they have potentials to cease to exist and to fail to be absent from reality altogether. (With respect to the latter potential, the same will hold for *any* contingent object.) Thus, an entity's essence and essential properties are purely actual only if the entity has no potential for non-existence. Since most entities can go out of existence, an entity whose essence and essential properties cannot possibly cease existing would be quite special. Moreover, for similar reasons, an entity's essence and essential properties are purely actual only if the entity cannot begin to exist, that is, only if there is no potential for the entity to exist that is actualized when the entity begins to exist. Finally, for similar reasons, an entity's essence or essential properties are purely actual only if the entity has no potential for existing that's actualized by some cause.

Second, suppose the objection is right and our first response is wrong. Even still, the objection doesn't actually target the argument we've presented in this section. The objection simply *grants* that essences or essential properties are purely actual. But in that case, our point stands: the neo-classical theistic God's essence or essential properties could easily be a purely actual source of all change. To be sure, the neo-classical theistic God still *changes* (and thus has potentials); but the changes are not inexplicable, brute happenings; instead, they are explained or actualized by more fundamental aspects of God—aspects that (we suppose) are part of God's essence or nature. And since (as this objection grants) God's essence or nature is purely actual, it follows that establishing a purely actual source of all change fails to establish classical theism.

2.4.2 *Objection Two*

Aquinas (2022) asks in *Summa Theologiae* (I, q3 a8) whether God—or, for present purposes, the purely actual source of all change—could enter into composition with other things, and it's worth considering whether Aquinas's answer addresses our argument from Sect. 2.4. Aquinas begins with his main thesis:

It is impossible for God to enter into composition with anything in any way, either as a formal principle or as a material principle. (*Summa Theologiae* I, q3 a8)

Now, it's important to note that nothing in our argument from Sect. 2.4 requires that the purely actual source of all change (hereafter, *Source*) be either a formal cause/

¹⁹Of course, *other people's* humanity will remain once S ceases to exist, and presumably so will the abstract universal *humanity* if there is such a thing. But *S's* humanity will not. We are here concerned with what Timothy Pawl calls “concrete natures” (cf. Pawl 2020, p. 14). These are particular things that inhere in and make up objects. We are thus concerned with a *constituent* as opposed to *relational* ontology. This is appropriate in the present dialectical context, since—as Vallicella (2019) and others have pointed out—classical theism is naturally and traditionally undergirded by a constituent ontology.

principle or a material cause/principle. One of our proposals was that *Source* was God's nature or essence. But these need not be understood in terms of God's formal cause. Perhaps there is no such thing as formal causation.²⁰ Perhaps God's nature or essence simply refers to all and only those actual aspects of God without which God wouldn't exist. These aspects need not be *formal causes* or *material causes* responsible for God's existence in some manner. (Indeed, God's existence isn't owed to anything, under neo-classical theism.) *Mutatis mutandis* for our case wherein *Source* is part of a non-theistic necessarily existent foundational being. Thus, if Aquinas merely argues against *Source* being a formal or material principle of something, then what Aquinas argues will fail to address our argument from Sect. 2.4.²¹

In any case, Aquinas offers three arguments for his thesis. Here's the first:

God is the first efficient cause. But an efficient cause is not numerically the same with the form of the thing that is made, but only the same in species; for example, a man generates a man. On the other hand, the matter is neither numerically the same nor the same in species with the efficient cause, since the matter is in potentiality, whereas the efficient cause is in act. (*Summa Theologiae* I, q3 a8)

There is much to say in response. First, even if this argument is successful, it would only show that *Source* is neither a form nor matter. But as already explained, this is compatible with our argument in Sect. 2.4. Second, just in terms of Aquinas's First Way (which is all we're evaluating in the present context), the defender of the First Way has not established that *Source* is the first efficient cause of things' *existence*. It is therefore mistaken to speak, at this juncture and in the present dialectical context, of things that *Source* has *made*. We have only concluded thus far that *Source* is the source of all *change*, not *being*.²² Third, our proposals in Sect. 2.4 did not suppose that *Source* is numerically the same with the form of something it made. Even if *Source* is understood as God's form, *Source* didn't *make* God; it is simply a *part* or *aspect* of God (or a *collection* of parts or aspects of God), and it merely actualizes God's *accidental changes* (or else (partly) actualizes *God's* actualization of God's

²⁰ Again, while the *Thomist* wouldn't grant that there's no formal causation, that's irrelevant in the dialectical context at hand. What matters is whether the defender of the First Way has given us any reason to think that there *are* formal causes, and that—in the case we described—God's nature or essence would count as such. (It's also significant if the First Way succeeds only if (something like) hylemorphism is true. This considerably decreases the First Way's dialectical efficacy and also renders it more immodest (and so less likely to succeed).)

²¹ Again, when Aquinas says "God," read it as "*Source*" in this context so that Aquinas's arguments actually target what we say in Sect. 2.4.

²² We aren't saying that this is a mistake in Aquinas's *own* reasoning. Remember, we're evaluating what Aquinas says *to see if it can help the proponent of the First Way respond to our argument from Sect. 2.4*. It would obviously be fatuous to assess *Aquinas himself* according to this standard. Aquinas is drawing on *other resources*, such as his *other* four ways, to answer the question he poses in *Summa Theologiae* (I q3 a8). But, again, we *aren't* assessing Aquinas according to that standard. We're assessing a hypothetical objection that seeks to *employ* what Aquinas says in order to respond to our worry from Sect. 2.4 in the dialectical context of (just) the First Way. Keep this in mind throughout this whole subsection.

accidental changes). *Mutatis mutandis* for the non-theistic views mentioned in Sect. 2.4.

Aquinas's first argument, then, is of no help to the defender of the First Way. What about Aquinas's second argument?

Second, since God is the first efficient cause, it belongs to Him to act primarily and per se. But that which enters into composition with another is not primarily and per se an agent. Instead, it is the composite thing that is primarily and per se an agent. For it is not the hand that acts, but the man who acts through the hand; and fire gives warmth through its heat. Hence, God cannot be a part of any composite. (*Summa Theologiae* I, q3 a8)

But, first, we haven't shown in the present dialectical context that *Source* is "the first efficient cause." As we saw in an earlier footnote, *Source* could very well *non-causally actualize* God's accidental changes, without causing anything. In that case, *Source* doesn't quite perform *actions* but rather offers explanatorily relevant *pre-conditions*. Since Aquinas's argument here requires that *Source* is the first efficient cause—and since, further, the argument requires that *Source acts*—it follows that Aquinas's argument here doesn't show that *Source* couldn't "compose" God (or the non-theistic necessary foundational being).²³ Hence, Aquinas's argument doesn't address our argument from Sect. 2.4. Second, even if *Source causally actualizes* God's accidental changes, and even if *Source acts* primarily and per se, why think that it is *always* true—for *every* composite substance—that it is the *substance* that acts primarily and per se rather than any of its *components*? At least in the passage at hand, Aquinas merely asserts as much. Indeed, for at least *some* changes, it seems plausible that it is the *parts* that primarily act while the substance acts simply by dint of the action of its parts. For instance, a *human* (*qua* substance) can properly be said to digest food, but only by dint of various of their *parts* (e.g., their stomach) acting in certain ways on ingested food. Further, it is open to the detractor to simply reject Aquinas's claim here as applied to *Source* and the substance it "composes."

Aquinas's second argument, like the first, is therefore of no help to the defender of the First Way. Let's examine Aquinas's third and final argument:

Third, no part of a composite thing can be absolutely the first among beings. And neither can the matter or the form, which are the first parts of composite things, be the first among beings. For ... the matter is in potentiality, and potentiality is absolutely posterior to actuality. On the other hand, a form that is part of a composite thing is a participated form; and just as that which participates in such-and-such is posterior to that which is such-and-such through its essence, so too the participated entity itself is posterior to that which is such-and-such through its essence. For instance, fire in things that are on fire is posterior to that which is fire through its essence. But it has been shown ... that God is the first being, absolutely speaking. (*Summa Theologiae* I, q3 a8)

There are at least two things to say in response. First, Aquinas here only shows (at best) that *Source* can be neither the form nor matter of the substance of which it is part. But we've already seen why this is no threat to our case in Sect. 2.4. Second,

²³ We say "compose" in quotes because we're not convinced of the (quite liberal) classical theistic view of parthood and composition, according to which a *part* of S is anything intrinsic to but distinct from S.

even if *Source* were the form of the substance it “composes,” why think that *every* form of *every* composite thing is a participated form? (Indeed, why think there are any relations of participation at all?) At least in the passage at hand, Aquinas merely asserts as much. In any case, it is open to the detractor to simply reject Aquinas's claim here as applied to *Source* and the substance it “composes.” The detractor can simply say that *precisely because Source* is the foundational, purely actual source of all change, *Source* is *not* participated.²⁴

By our lights, then, Aquinas's three arguments from *Summa Theologiae* (I, q3 a8) are of little help to the defender of the First Way in responding to our argument from Sect. 2.4. At the very least, the defender of the First Way has much more work ahead of them if they are to employ Aquinas's arguments in the present dialectical context.

2.4.3 Objection Three

Perhaps one will say that our “Gap Problem” ultimately *vindicates* the First Way (ignoring, of course, the panoply of other problems we've articulated) insofar as our problem *grants* that there's some purely actual reality.

But this objection isn't convincing. For the purely actual reality, given our problem, is a *mere proper part or aspect* of the foundational *being*. This is incompatible with classical theism (and hence with the very thing the First Way was meant to establish), as classical theism takes the purely actual reality to be a *being in its own right* rather than a *mere proper part or aspect* of a foundational being.

2.5 Summary Thus Far

We began our critical appraisal by examining Oppy's criticism that the First Way is invalid. McNabb and DeVito's recent formulation of the First Way—developed in response to Oppy's criticism—is only valid under certain interpretations of the conclusion and premises. These interpretations are either unmotivated or quite distant from classical theism. In showing this, we've raised a host of new problems for Aquinas's First Way, ones which have gone underappreciated by philosophers

²⁴ This statement doesn't require saying that no other form is a participated form. In fact, if we take *Source* to be the divine nature (or perhaps the collection of essential divine properties), then we could suppose that *Source* contains the exemplar forms in which all other forms participate (along the lines of, e.g., a brand of theistic conceptualism).

working on arguments from change.²⁵ As we've seen, the First Way only concludes that, for each *per se* chain of changes C, there is some first or terminating member T of C that is unactualized (i.e., unmoved) at time *t* in respect of the causal power or feature F of C. But the inference from this to T's being purely actual *simpliciter* is marred by at least six non-sequiturs:

1. From the fact that T is unactualized in respect F at time *t*, it doesn't follow that T is unactualized in respect F at times *other than t*. (There may be some T* distinct from T that serves as the terminus of C at another time, and T may be actualized in respect F at such times; or T may serve as terminus of C at another time while having built-in power with respect to F *and* casually actualized power with respect of F; or etc.). But suppose we *could* infer that T is unactualized in respect F at times other than *t*. Still:
2. From the fact that T is unactualized in respect F at times *other than t*—say, at each moment at which the relevant chain of changes C exists—it doesn't follow that T is unactualized in respect F at *all times* at which T exists. Perhaps C no longer exists, and so even if T is the unactualized/first member of C at every time at which C exists, T may still exist (after C has ceased to exist) and be actualized in respect F. But suppose we *could* infer that T is unactualized in respect F at all times at which T exists. Still:
3. From the fact that T is unactualized in respect F at all times at which T exists, it doesn't follow that T is *unactualizable*, as a matter of metaphysical necessity, in respect F. But suppose we *could* infer that T is unactualizable in respect F. Still:
4. From the fact that T is unactualizable in respect F, it doesn't follow that T is unactualizable in *every respect*, i.e., that T is purely actual, full stop. But suppose we *could* infer that T is unactualizable in every respect. Still:
5. From the fact that T is unactualizable in every respect (and hence purely actual), it doesn't follow that T is the *single* source or terminus of *every* chain of changes (i.e., of all change). But suppose we *could* reach that conclusion. Still:
6. From the fact that T is a purely actual source of all change, it doesn't follow that a purely actual *being* exists, let alone that the God of classical theism exists. (Showing this was the purpose of Sect. 2.4.)

²⁵There are many other (potential or actual) problems for the First Way that we won't discuss. For instance, some have rejected the principle that whatever is changed is changed by another. Scholastic philosopher Francisco Suárez (1548–1617) argued that our free actions involve self-motion and so furnish counterexamples to the principle (Hill 2019). (For Aquinas's take on what moves the will, see *Summa Theologiae* I-II, q9.) Others have argued against the ontological pluralism undergirding the argument (Schmid 2021, Sect. 7.13). Another problem is that the First Way's act-potency analysis of change seems to assume that four-dimensionalism is false. For according to four-dimensionalism, all times (and their contents)—or all Relativistic hypersurfaces (and their contents)—are tenselessly and equally actual. And given that there is change over time, it would be false (under four-dimensionalism) that such changes involve a transition from potentially existent things or attributes to actually existent ones. This certainly limits the First Way's dialectical force insofar as four-dimensionalism is a rationally defensible position in philosophy of time and philosophy of physics. We return to philosophy of time considerations in later chapters.

The defender of the First Way therefore has several new hurdles to clear before they can demonstrate the God of classical theism.²⁶

In the following section, we address three final rejoinders on behalf of the First Way to some of the criticisms that we've raised in this chapter.

2.6 Rejoinders

2.6.1 Act's Priority

One might respond that Aquinas himself anticipated the problems we leveled in Sect. 2.3 concerning the purported possibility of the unmoved mover's having *some* potency. For Aquinas (2022) himself writes:

[T]he first being must be fully actual and in no way in potentiality. For even though in one and the same thing that goes from potentiality to actuality, the potentiality is temporally prior to the actuality, nonetheless, absolutely speaking, actuality is prior to potentiality—because what is in potentiality is led into actuality only by a being that is in actuality in a relevant respect. But ... God is the first being. Therefore, in God there cannot be anything in potentiality. (*Summa Theologiae* I, q3, a1)

The idea is as follows. Act is prior to potency; hence, anything which is absolutely first in the order of being (such that nothing is prior thereto) could not have potency. For if some A absolutely first in the order of being had potency, then some distinct actuality would be prior to A—in which case, A wouldn't be *first* in the order of being. Something would be prior to A. We can formalize this argument like so:

1. Potentials require some prior actuality.
2. If the first being has potential and potentials require some prior actuality, then something is prior to the first being.
3. Nothing is prior to the first being.
4. So, the first being has no potential.

What to make of this argument?

There are at least two serious problems. First, the consequent of premise (2)—that something is prior to the first being—simply doesn't follow from its antecedent—that the first being has potential and potentials require some prior actuality. That the first being has potential and that potentials require some prior actuality does not entail that there would be a *being* (i.e., an entire *concrete object*) that is prior to the “first being.” Instead, the *actuality* (or actualities) of the “first being,” B, could be prior to the *potency* (or potencies) of B. In such a case, act would be prior

²⁶ It should be noted that MacDonald (1991) brings to light the problematic inference from *unmoved* to *unmovable*, arguing that—for this very reason—Aquinas's First Way is parasitic on another, different argument for God's existence found elsewhere in Aquinas's corpus. However, we have brought to light a whole host of other problematic inferences that MacDonald does not discuss.

to potency, but there would be nothing prior to B. Hence, in principle, B can be a first being while nevertheless having potency.²⁷

One might *again* object at this juncture that Aquinas addresses (in *Summa Theologiae* I, q3 a8) the claim that the foundational, purely actual reality that actualizes all else (what Aquinas terms “God”) cannot enter into composition with other things. And yet if the foundational, purely actual reality were simply a proper part of B, such a reality *would* enter into composition with other things.

But, once again, this objection is not convincing. First, our suggestion in this section is *not* that the purely actual reality enters into composition as a formal or material principle of something. Instead, the suggestion is that the *actualities* of B—which, *qua* aspects of B, are not quite “purely actual realities” in their own right—are prior to B’s potentialities.²⁸ Furthermore, the suggestion is not that such actualities are formal or material principles of B—their status need not be that of B’s formal or material cause. Indeed, the actualities of B need not even be *causes*, whether efficient, formal, final, or material—B’s actualities need only be actualities upon which the potencies of B explanatorily depend. So, once again, what Aquinas addresses in *Summa Theologiae* (I, q3 a8) simply fails to engage our criticism.

Let’s now consider the second serious problem with this section’s rejoinder. As we’ve seen, the First Way only gets us (at best) to the claim that for every per se chain of changes C, there is at least one first member T of C that is actually unmoved at time *t* in respect of the causal power or property of C. The First Way therefore does *not* establish the existence of a “first being” that is *the most fundamental* being—more fundamental than *all else* and *in every respect*. Instead, the First Way at most shows the following claim: each per se chain C has a first member T such that nothing is prior to T in respect of the causal power of C during the time(s) at which T serves as first member of C. But this claim is perfectly compatible with T standing in potency in some *other* respect, e.g., some respect that has nothing to do with the causal power/property of the C for which T serves as terminus. Hence, this claim is perfectly compatible with the existence of something more fundamental than T in that *other* respect but *not* more fundamental than T in respect of the power/property of C.

We conclude, then, that the rejoinder at hand fails.

²⁷ Recall the points defended in Sect. 2.4. Note, also, that the onus is on the *proponent* of the above argument to rule this case out; we do not shoulder the burden to *positively show* that this is true or even possible.

²⁸ If we take B (as a substance) to be ontologically prior to its various parts or aspects, then even those actualities of B are in some sense “actualized” by B *as such*. This still respects act’s priority to potency, since B’s actuality *as such* is prior to its various actual aspects, which in turn are prior to B’s various potential aspects. Note, though, that this “priority of the whole” isn’t required for our case—we could just as easily suppose that the ultimate foundational reality is the fundamental actualities of B, and that B depends on its parts and aspects. (Cf. the considerations discussed in Sect. 2.4.)

2.6.2 Occam's Revenge

Recall that one of our criticisms of the First Way was its inability to establish that there is exactly one unmoved mover (as opposed to a panoply of mundane first movers in disparate causal series). But one might respond that *Occam's Razor* justifies the inference to a *single* source for *all* chains rather than a plurality of sources, each of which serves as a terminus for their respective chains. For the former is surely simpler than the latter and hence is to be preferred.

We have three responses. First, taking this line of response renders the First Way no longer a *metaphysical demonstration* but rather an argument based on a defeasible rule of thumb. This is significant in its own right, as the First Way is often taken by both proponents and detractors to be an attempt at a strict, deductive demonstration from first principles of metaphysics. If the First Way fails as a demonstration from first principles, then even if the First Way succeeds as an ampliative argument, the argument's force is considerably weakened.

Second—and more importantly—the objection at hand fails to distinguish between *quantitative* and *qualitative* (or categorical) simplicity. The former refers merely to the number or quantity of entities within one's ontology, whereas the latter refers to the number of *fundamental kinds* or *categories* within one's ontology. The latter is typically taken (plausibly so, by our lights) to be the more important (i.e., the more theoretically virtuous).²⁹ While the objection at hand might succeed in showing that the “single source” hypothesis is *quantitatively* simpler than the “multiple source” hypothesis (more on that anon), the *latter* is actually *qualitatively* simpler than the former. For in the latter case, the explanatory work is done by “mundane,” ordinary first movers with rather mundane, ordinary causal powers. For instance: the first member of a given chain of heat-related changes is (say) the fire; but in another case of heat-related changes, the first member is (say) the sun. In another case wherein the relevant causal power or property of the series is (something like) “being held aloft,” the first mover will simply be the Earth (or the Sun, or the gravitational influence they exert on one another), since the Earth has the power to hold other things aloft without itself being held aloft by something “beneath” it. In another case of spatial motion (e.g., the mind-hand-stick-stone case), the first mover is simply the human mind. And so on. The multiple source hypothesis therefore enjoys *qualitatively* simplicity, since the first movers that this hypothesis countenances are all uniformly mundane, ordinary, this-worldly, changeable, natural entities. This categorical uniformity and simplicity is not present in the single source hypothesis under consideration, which posits a categorically different, extramundane, unordinary, unchangeable, supernatural being as first mover. Thus, far from *supporting* the single source hypothesis, Occam's Razor arguably cuts against it. (Pun intended.)

Third, the single source hypothesis does not seem to be *quantitatively* simpler. For the ontological commitments of the multiple source hypothesis are a *proper*

²⁹Among many others, see Koons and Pickavance (2017, p. 141), Nolan (1997), and Lewis (1973, p. 87).

subset of the ontological commitments of the single source hypothesis. After all, the single source hypothesis is committed to the very same mundane movers that the multiple source hypothesis takes as the stopping points for explaining change. But in addition to such mundane movers, the single source hypothesis posits an extra being appended to all such (per se) chains of change. Thus, the single source hypothesis is committed to all the entities posited by the multiple source hypothesis *and more*. The multiple source hypothesis is therefore both qualitatively *and* quantitatively simpler than the single source hypothesis.

For these three reasons, the appeal to Occam's Razor won't be of much help to the defender of the First Way.

2.6.3 *Particular and General Change*

A third rejoinder concerns our claim that the First Way could only establish a panoply of mundane first movers of the multifarious per se chains that populate the world. In particular, one might object that Aquinas is not concerned with explaining *particular* cases of change, i.e., particular instances wherein potency is reduced to act. Instead, Aquinas is concerned with explaining why there is *any* actualization of potential *at all*. And *this* cannot be explained by mundane first movers—we must instead appeal to a *purely actual* being.

Many things can be said in response. First, it's not at all clear that this is what Aquinas is concerned with, and it's certainly not what McNabb and Devito are concerned with in their articulation of the First Way. But set that aside. For even if this is what Aquinas is concerned with, we would not be able to conclude that a panoply of mundane first movers cannot explain why there is any actualization of potential at all. So long as each per se chain of change is explained by a (mundane) primary member with the relevant built-in power, and so long as each per accidens chain of change is either explained by more fundamental per se chains of change or else trace back to a primary member in the per accidens chain, we *do* seem to have an explanation for why there's *any* actualization of potential *at all*. At the *very* least, the objection in question has given us no reason to abandon this position and hence has given us no reason to opt for a *purely actual* source of *all* change as opposed to a panoply of mundane, non-purely-actual changers.

Second, it's simply false that the only possible explanation of why there is *any* actualization of potential is in terms of a purely actual being. Here are just three among myriad other ways to explain why there is any actualization of potential:

1. Suppose N is an essentially timeless, necessarily existent source of every object apart from itself. Suppose also that N has potencies for cross-world variance, i.e., variance in non-essential properties across worlds. Hence, N is not purely actual. Nevertheless, N can easily explain why there is change. Perhaps N spontaneously, impersonally, and indeterministically causes our universe to begin to exist and thereby causes the first events and changes that unfold in reality. (We

can suppose, further, that N continuously sustains all change as time progresses.) Or perhaps N timelessly, intentionally, and freely wills the creation of the universe (including all the changes therein). In this case, N explains why there are any changes (at all, ever). Moreover, the explanation here doesn't presuppose the prior reality of change, since something's *causing* change does not require *that thing itself* to first (intrinsically) change (lest the classical theist admit that God changes in God's creative act). Finally, suppose that N's various non-essential features across worlds are (indeterministically) explained by more fundamental, essential, necessary features of N. Under this view, no actualization of potential goes unexplained, *and yet there is no purely actual being*.

2. Suppose a version of neo-classical theism is true. Then, all changes in things *other than* God are explained in terms of God's initial free choice to create in combination with God's continuously performed free choice(s) to sustain objects and cause (perhaps via concurrence with creaturely causality) their changes. Moreover, suppose God changes in performing such choices. Such changes are not inexplicable; they are explained in terms of (or actualized by) more fundamental features of God, e.g., God's desires, reasons, beliefs, character, goodness, and the like. Thus, under this view, no change or actualization of potential goes unexplained, *and yet there is no purely actual being*.
3. Much like (2), suppose there's a foundational, necessarily existent agent—God—with various passive potentials that can be actualized by *God himself*, i.e., by God's exercise of agent-causal power. The various changes in creation would be explained by reference to God's creating and sustaining activity, and God's *own* passive potencies could be actualized by God *qua agent cause*. Agents actualize their own passive potentialities all the time—for instance, assuming agent-causal views in the metaphysics of action, you actualize your own passive potency to form intentions. (This doesn't involve the passive potency pulling itself into actuality by its own bootstraps.) On such a view, there is no purely actual being, and yet no actualizations of potential go unexplained.³⁰

We shouldn't be sanguine, then, about the objection at hand. More generally, the very fact that we can explain all actualizations of potential without recourse to a purely actual being *itself* plausibly defeats the First Way.

2.7 Conclusion

We began this chapter by noting the historical and contemporary significance of arguments from change for classical theism, and we also stressed the parallel between one such argument—Aquinas's First Way—and Feser's Aristotelian proof.

³⁰ Moreover, in such a scenario God is obviously the *first cause*, and so *being a first cause* doesn't require *being a purely actual being*.

We then raised a panoply of problems for Aquinas's First Way. First, its validity is preserved only in light of certain interpretations of its conclusion and premises. But such interpretations were found either to be unmotivated or to lend little to no support to classical theism. We also uncovered at least six non-sequiturs afflicting the argument. We concluded by examining and rebutting objections to our critical appraisal.

With this critical appraisal in hand, we can proceed on our journey through classical theistic proofs. The next argument to be evaluated—the Aristotelian proof—is an intellectual descendent of Aquinas's First Way.

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Chapter 3

Stage One of the Aristotelian Proof



3.1 Introduction

What explains change? Edward Feser argues in his Aristotelian proof that the only adequate answer to this question is ultimately in terms of an unchangeable, purely actual being. We saw in the previous chapter that Feser's argument traces its intellectual heritage to the time of Aristotle, receiving forceful and influential treatment over the centuries by thinkers like Maimonides and Thomas Aquinas. But we also uncovered a variety of new defects in one such treatment—Aquinas's First Way. We will argue that the Aristotelian proof succumbs not only to some of the problems that afflicted the First Way but also new problems of its own.

The proof is divided into two stages. Stage one seeks to demonstrate the existence of a purely actual, unactualized actualizer. Stage two identifies this unactualized actualizer with God. Because this chapter's appraisal will be restricted to stage one, we should get a clear grasp of the argument. Feser formalizes the argument like so:

1. Change is a real feature of the world.
2. But change is the actualization of a potential.
3. So, the actualization of potential is a real feature of the world.
4. No potential can be actualized unless something already actual actualizes it.
5. So, any change is caused by something already actual.
6. The occurrence of any change C presupposes some thing or substance S which changes.
7. The existence of S at any given moment itself presupposes the concurrent actualization of S's potential for existence.
8. So, any substance S has at any moment some actualizer A of its existence.
9. A's own existence at the moment it actualizes S itself presupposes either (a) the concurrent actualization of its own potential for existence or (b) A's being purely actual.

10. If A's existence at the moment it actualizes S presupposes the concurrent actualization of its own potential for existence, then there exists a regress of concurrent actualizers that is either infinite or terminates in a purely actual actualizer.
11. But such a regress of concurrent actualizers would constitute a hierarchical causal series, and such a series cannot regress infinitely.
12. So, either A itself is a purely actual actualizer or there is a purely actual actualizer which terminates the regress that begins with the actualization of A.
13. So, the occurrence of C and thus the existence of S at any given moment presupposes the existence of a purely actual actualizer.
14. So, there is a purely actual actualizer. (2017, pp. 35–36)

The idea is as follows. Nothing can be reduced from potency to act except by some causal actualizer in a state of actuality. “To reduce” in “to reduce from potency to act” means roughly: to *go from* potency to act, to be *brought* to actuality from potentiality, or to *realize* that which *can* be. For example, when a pomegranate becomes ripe, the pomegranate realizes various potencies; Aristotelians would say that the pomegranate's potency for ripeness is reduced to act. Further, the pomegranate's potential to ripen is reduced to actuality by a combination of conditions both internal and external to the pomegranate; unless such causal conditions actually obtain, the pomegranate will not ripen. But—the argument continues—any substance S that is a composite of act and potency is, at any moment at which the substance exists, reducing from potentially existent to actually existent. Hence, any such S requires a continuously operative, sustaining causal actualizer of S's existence. That is, in order for S to realize its potential to exist at a specific moment, there must be an efficient cause that actualizes that potential at that moment. The result is a hierarchical or per se chain of sustaining causal actualizers, at any given moment, of any given act-potency composite object. But per se chains of sustaining causal actualizers must be finite and so must terminate in a purely actual, unactualized actualizer. In much shorter terms: the ultimate explanation of change—including the very being or existence of substances that change—must be in terms of a purely actual being.

Having laid out the argument, let's consider the structure of our appraisal thereof. We begin by discussing the dialectical context of the Aristotelian proof as well as various kinds of criticism one may level towards the proof (Sect. 3.2). We then argue that several defeaters afflict premise (7) of the proof (Sect. 3.3). Next, we propose a new necessary condition for per se chains (Sect. 3.4), arguing that our proposal provides an undercutting defeater for the proof (Sect. 3.4.1). We then develop a new dilemma for the proof (Sect. 3.5), after which we argue that Feser's inference from *presently unactualized* actualizer to *purely actual* actualizer is a non-sequitur on multiple fronts (Sect. 3.6).

We emphasize that our criticisms of stage one of the Aristotelian proof in this chapter do not exhaust our criticisms thereof. There's a whole dialectical avenue of criticism that we will not pursue in depth in this chapter (and instead leave for Chaps. 4, 5, 6 and 7): *existential inertia*. It is interesting to note, though, that the

case against the Aristotelian proof does not rest on the truth or rational defensibility of existential inertia.

Let's begin, then, by clarifying the dialectical context at hand.

3.2 Dialectical Context

We won't re-iterate the lessons from Sect. 1.4 about the dialectical context of classical theistic proofs. Instead, we want to highlight an important feature of the present dialectical context: the *independence* of the Aristotelian proof from a variety of other large-scale theoretical commitments. More specifically, Feser aims for his Aristotelian proof to be *independent* of each of his other proofs of God's existence. Feser also aims for his Aristotelian proof to be independent of other theoretical commitments like presentism or eternalism (2017, p. 50) and Aristotelian hylemorphism. Feser writes, for instance, that "Aristotelian hylemorphism is controversial, and I refrained from putting things in terms of it, because doing so is not necessary to the [Aristotelian proof]" (2017, pp. 28–29). So, while considerations of the real distinction between essence and existence (*esse*), the Thomistic conception of *esse*, Aristotelian hylemorphism, and other such commitments might supplement the argument, Feser expressly intends his proof to stand irrespective of them.

With this dialectical point covered, we turn to our critical appraisal of the argument, beginning with premise (7).

3.3 Premise (7)

Let's first examine the justification for premise (7) of Feser's argument. Recall that premise (7) states that the "existence of S at any given moment itself presupposes the concurrent actualization of S's potential for existence" (2017, p. 35). This premise says that S is concurrently causally sustained at each moment of its existence. On behalf of premise (7), Feser writes:

The basic idea is this. Consider a collection of particles of type *P* which constitute water at time *t*. Though they actually constitute water at *t*, there is nothing in the particles *qua particles of type P* that suffices to make them water rather than one of the other alternatives mentioned. Again, *qua particles of type P* they have the potential to constitute water, or separate quantities of hydrogen and oxygen, or some other substance or aggregate of substances. So, there must at *t* be something distinct from the collection which actualizes its potential to be *water*, specifically. (Feser 2021)

What to make of this justification?

We have one clarification and two replies. To begin our clarification, we distinguish between two different causal principles—i.e., two different ways to interpret the causal principle captured in premise (4) of Feser's Aristotelian proof:

Causal Principle 1 (CP₁): If there are a range of potentials $p_1, p_2, \dots p_n$, only one of which can be actualized at a given time t , and one of them, p_i , is actualized at t , then there is some (concurrently operative) cause which makes p_i actual at t .¹

Causal Principle 2 (CP₂): Whenever there is some transition from potential being to actual being—i.e., whenever something that exists in potency is brought from its (temporally or ontologically/causally) prior state of existing in potency to its state of existing in actuality—there is an already actual cause of this transition.

In the above quoted passage from Feser (2021), Feser articulates and defends CP₁. The quoted passage suggests that the water's potential for existence is realized or actualized in the sense that the *collection of the water's parts*—its underlying matter, say, or the water's constituent molecules and atoms and whatnot—considered *just in respect of being those parts* is only potentially water (and potentially other things, too). In itself, the collection is potentially a whole host of things, but the collection is only *water* once the relevant potential is actualized. Since nothing about the collection *itself* suffices for the collection actually constituting water at a given time (as opposed to constituting a whole host of other potential things), some other factor must contribute to this actualization. *This* is the sense in which the collection's potential to exist as water is actualized (i.e., reduced from potency to act). Thus, if there are a range of mutually exclusive potentials only one of which can be actualized, then nothing about any such potential suffices for its actualization—in which case, there must be some concurrent cause that actualizes that potential. So, the causal principle at play in the quoted passage is CP₁.

But it isn't immediately clear that CP₁ is the causal principle articulated and defended in Feser's (2017, ch. 1) Aristotelian proof. That title, it seems, is reserved for CP₂ (or something very much like CP₂). Here's the causal principle Feser (2017, ch. 1) articulates and defends:

Change requires a changer. We find examples all around us in everyday experience.... In general, any mere potential can only be actualized by something that is already actual. In that sense, any change requires a changer of some sort or other.

So, change occurs, and any change requires a cause; or to put it less colloquially but more precisely, some potentials are actualized, and when they are, there must be something already actual which actualizes them. (2017, p. 19)

Elsewhere in Feser (2017, ch. 1), Feser puts the causal principle similarly:

First of all, the argument does *not* rest in the first place on the premise that '*everything* has a cause.' What it says is that any *change* requires a cause; more precisely, it says that *whatever goes from potential to actual* has a cause. That is very different from saying that *everything whatsoever* has a cause. (2017, p. 39)

As these passages illustrate, the causal principle at play in Feser (2017, ch. 1) seems much more in line with CP₂ than CP₁. According to CP₂, transitioning from potency to act requires a cause, and according to the above passages, going from potency to act requires a cause. The similarity is apparent.

¹ If you don't like talk of potentials here, substitute "possibilities"—nothing hangs on this.

Moreover, at least as far as we can tell, *nowhere* in Feser (2017, ch. 1) does Feser justify a causal principle to the effect of CP_1 , i.e., to the effect of <if there are a range of potentials $p_1, p_2, \dots p_n$, only one of which can be actualized at a given time t , and one of them, p_i , is actualized at t , then there is some concurrent cause which makes p_i actual at t >. CP_1 —unlike the principle defended in Feser (2017, ch. 1)—makes no reference to *going from* potency to act. Instead, CP_1 concerns *cross-world difference*: if one possibility among a range of incompatible possibilities is actual, then there must be some cause that explains why the actual possibility is *actual*.² This is a stronger principle than the principle that *going from* potency to act requires a cause, and as far as we can tell, Feser (2017, ch. 1) concerns himself only with the latter.

Another indication that CP_1 isn't the causal principle at play in the Feser's (2017, ch. 1) Aristotelian proof is that CP_1 would straightforwardly debar the inference to a *purely* actual being. For suppose that the unactualized actualizer is simply a *necessary* but non-purely-actual being, α .³ In that case, since α necessarily actually exists, there wouldn't be a range of potentials concerning the very *being, existence, or actuality* of α . Thus, α has no potential pertaining to α 's very substantial being or existence (e.g., potentials to cease to exist, to begin to exist, or to be absent from reality altogether). Nor do any of α 's "parts" have the potential to constitute something different. Thus, if the causal principle at play in the Aristotelian proof *were* CP_1 , then the Aristotelian proof would be incapable of justifying the need for a sustaining, actualizing cause of α . (Why? Because, contrary to the antecedent of CP_1 , there isn't a range of potentials concerning α 's very substantial existence. And so one cannot infer, solely *by means of* CP_1 , that there's a cause of α 's existence.) And if the Aristotelian proof were incapable of justifying the need for a sustaining, actualizing cause of α , then the Aristotelian proof simply couldn't show that the unactualized actualizer is *purely* actual, since—for all the argument shows— α could be the unactualized actualizer, and α is not purely actual.

That, then, is our clarification: the justification Feser (2021) offers on behalf of premise (7) seems nowhere to be found in Feser (2017, ch. 1), and furthermore the justification would debar the inference to a *purely* actual actualizer. In Sect. 3.5, we'll return to CP_1 and CP_2 and argue that they undergird a new dilemma for the Aristotelian proof. For now, we simply want to highlight and clarify their role in the dialectic of Feser's Aristotelian proof.

Let's turn, then, to our first reply to Feser's (2021) proffered justification: Feser's inference to the claim that "there must at t be something distinct from the collection which actualizes its potential to be *water*, specifically" is a non-sequitur. Merely from the fact that the collection *as such* (*qua* collection) does not suffice for the

²Alternatively: if one potential among a range of incompatible potentials is actualized, then—so the principle goes—there must be some cause that explains why the actualized potential is, well, *actualized*.

³An entity E is necessary just in case E cannot fail to exist. E *must* exist. E cannot be absent from reality. E exists in all possible worlds, where a possible world is just a complete, total, or comprehensive way reality could be.

collection's actually constituting water at *t*, the only thing that follows is that there must be some *other* sufficient condition(s) for the collection's constituting water at *t*. What *doesn't* follow is that this other sufficient condition(s) is a *sustaining, efficient, actualizing cause*. The other sufficient condition(s) need only be some *explanation* of why the collection constitutes water at *t*. But there are whole swathes of explanations of why the collection constitutes water at *t* that don't adduce some outside sustaining or conserving efficient cause. We will explore each of the following in much more detail in Chaps. 5 and 6, but a short summary suffices for now:

- (a) A tendency or disposition to persist in existence (à la tendency-disposition accounts);
- (b) Transtemporal explanatory relations (e.g., causal relations) obtaining among the successive phases of objects' lives or among their temporal parts (à la trans-temporal accounts);
- (c) Laws of nature that govern or otherwise explain the evolution of systems and/or the persistence of objects over time (à la law-based accounts);
- (d) The primitive metaphysical necessity of the existential inertia thesis (à la propositional necessity accounts);
- (e) The metaphysically necessary existence of some foundational temporal concrete object(s), such as the neo-classical theistic God or various naturalist-friendly proposals (à la objectual necessity accounts); and
- (f) Persistence being the *absence* of change and so adequately explained by the absence of sufficiently destructive change-inducing factors (à la no-change accounts).

To be sure, there are more besides. We're simply giving a flavor of the explanations on offer that make no appeal to conserving or sustaining causes.

Our second reply is one already adumbrated, but we deem the reply important enough to demarcate as a response in its own right. In particular, the causal principle Feser implicitly adduces in the quoted passage, CP₁, actually *undermines* the Aristotelian proof. CP₁—to reiterate what we said above—would straightforwardly debar the inference to a *purely* actual being. For suppose that the unactualized actualizer is simply a *necessary* but non-purely-actual being, α . In that case, since α is *necessarily actually existent*, there isn't a range of potentials for the very *being, existence, or actuality* of α . Thus, α has no potential pertaining to its very substantial being or existence. Consequently, if the causal principle at play in the Aristotelian proof *were* CP₁, then the Aristotelian proof would be incapable of justifying the need for a sustaining, actualizing cause of α . And if the Aristotelian proof is incapable of justifying the need for a sustaining, actualizing cause of α , then the Aristotelian proof couldn't show that the unactualized actualizer is *purely* actual, since—for all the argument shows— α could be the unactualized actualizer and yet *not be purely actual*. Feser's proffered justification for premise (7) therefore *undermines* the Aristotelian proof.

Think about things this way. By Feser's lights, it was *precisely because* the collection (*qua* collection) did not suffice for the collection's actually constituting water that there must be some sustaining or actualizing cause (apart from the

collection itself) of the collection's actually existing as water (or else actually *constituting* water). But this motivation for a sustaining cause is simply irrelevant if there *is* some fact about the entity in question (*qua* that entity) that suffices for the entity's existence. And this is precisely what a whole host of non-theists and non-classical theists think is the case: the foundation of reality is one or more fundamental, *necessarily existent* entities with potentials for accidental (though obviously not substantial) change. Hence, unlike the case of the collection, there *is* some fact about such entities that suffices for their existence. Thus, even granting that the collection needs a sustaining or conserving cause, the same motivation that leads Feser to require a sustaining cause *undercuts* his inference to the *pure* actuality of the unactualized being.

As a result of these two replies, we conclude that the quoted passage fails to justify premise (7). But perhaps someone will argue that, per the Principle of Sufficient Reason (PSR), the present existence of the water (or any substance for that matter) requires an explanation. And absent a concurrently operative, sustaining efficient cause, there is no explanation for the present existence of the water. Call this response the *PSR Response*.

However, the PSR Response fails. We've already seen one reason why: there are whole swathes of explanations of the moment-by-moment existence of temporal concrete objects that make no reference to sustaining efficient causes.

To draw this out, consider an example of one such explanation: plausibly, *past* entities can and do legitimately explain the existence of present entities.⁴ Indeed, our ordinary, commonsense explanatory practices, as well as our scientific practices, are difficult to square with a position on which past entities are incapable of explaining present entities. Delving into arguments in favor of the legitimacy of past entities explaining present entities, though, would take us too far afield given present purposes. (For some such arguments, see Schmid 2021a.) Two notes suffice for now.

First, a dialectical point: Feser himself seems to agree that past entities can causally explain present entities.⁵ Second (and more importantly), a dialectical point: *even if* one holds that past entities cannot legitimately explain present entities, or cannot *adequately* explain present entities, what matters for present purposes is that neither Feser nor the (hypothetical) proponent of the PSR Response have—in the dialectical context at hand—provided those who *do* think the present existence of an act-potency composite object could be (adequately) explained by some past entity

⁴Note that we *need not* even appeal to past entities to explain present ones. We'll provide in Sect. 3.4 a plausible metaphysical account of one necessary condition for per se chains on which the absence of a tendency to expire or annihilate, combined with a few other conditions, explains the present existence of the substance. (And, again, we'll consider *in detail* various metaphysical accounts that explain the persistence of objects in chap. 6. Such accounts provide defensible explanations of the present existence of the water, assuming that the present is not the first time at which the water exists.)

⁵For Feser, that something "*did* exist simpliciter at one time ... is enough for it to bear a causal relation to me" (Feser 2019). (We'll say more about transtemporal causal relations in Sect. 6.3.)

(say, the immediately temporally prior⁶ state and existence of the object in question in conjunction with the absence of sufficiently destructive factors operative) any reason to abandon their view. And in that case, the PSR Response and premise (7) face an undercutting defeater. For (i) the PSR Response and premise (7) require that the present existence of such an object *cannot* be so explained, and yet (ii) neither the PSR Response nor what Feser says on premise (7)'s behalf provide adequate reason to think the present existence of such an object cannot be so explained. So, the PSR Response fails.

Now, one might object that Feser (2021) is happy to grant that what happened prior to *t* is *part* of the explanation of the water's existence at *t*. But what is in question is whether what happened prior to *t* is *by itself sufficient* to explain the water's existence at *t*. And yet nothing we said above justifies why *this is by itself sufficient*.

But this objection rather overtly misunderstands the dialectical context. Yes, what is in question is whether what happened prior to *t* is by itself sufficient to explain the water's existence at *t*. But—and this is crucial—Feser is the one offering a *positive argument* one of whose premises requires that what happened prior to *t* is *not* sufficient to explain the water's existence at *t*. By contrast, we did *not* (or in any case *need not*) take a stance on whether what happened prior to *t* is by itself sufficient to explain the water's existence at *t*. Rather, we simply pointed out that nothing in premise (7) or what Feser says on its behalf gives those who *accept* (or are *agnostic* on) the claim that <what happened prior to *t* is sufficient to explain the water's existence at *t*> sufficient reason to abandon their view. The onus is *not* on *us* to give *positive reasons* for thinking what happened prior to *t* is sufficient to explain the water's existence at *t*. Rather, all we need to do is point out that (i) in order for Feser's proof to succeed, Feser needs to positively show that what happened prior to *t* is *not* sufficient for the water to exist at *t*, and that (ii) Feser has simply not showed this. Thus, it's simply irrelevant whether we say anything to justify the claim that what happened before *t* is explanatorily sufficient. In short, detractors of the Aristotelian proof *do not need* to positively justify or establish that what happened prior to *t* is sufficient to explain the water's existence at *t*. Detractors need only point out that the *Aristotelian proof*—and what has been said on its behalf—fails to justify that they *aren't* sufficient.

But perhaps something in Feser (2017, ch. 1) *does* justify the claim that what happened prior to *t* is insufficient to explain why the water exists at *t*. As far as we can tell, the only justification we're given is the following passage:

[I]t is that matter's potential to exist as *water* that is being actualized right now. Why? It is no good to answer that such-and-such a process occurred at some time in the past so as to combine the hydrogen and oxygen in just the right way. That tells us how the water *got* here, but that is not what we are asking about. It is also no good to point out that nothing has yet come along to separate out the hydrogen and oxygen. That tells us how the water might someday go out of existence, but that isn't what we're asking about either. What we're ask-

⁶If time is continuous, we can let the temporal state immediately prior to *t* refer to some suitably small finite interval of time—perhaps infinitesimally small—with *t* as its later-than bound. (Again, more in Sect. 6.3.)

ing about, again, is what *keeps* the water in existence at any instant at which it does in fact exist. (2017, p. 26)

But this amounts to simply *asserting* that the appeal to past entities or states of affairs is insufficient to explain the present existence of the water. Someone who thinks that the existence of S at moment m is adequately explained by (say) the conjunction of (i) S existed immediately before m and (ii) nothing destroyed S from then through m will simply say: “Au contraire! On my view, these *do* suffice to explain the existence of S at m. Nothing you say in the quoted passage gives me any reason to think my proffered explanation is inadequate. You can retort that it’s ‘no good,’ but you need to *show* why it’s no good. My view is *precisely* one according to which the conjunction of (i) and (ii) tells us not merely how the water got here, and not merely how the water might go out of existence, but also *why the water exists at m*. All you’ve done is simply *assert* that the conjunction of (i) and (ii) doesn’t tell us why/how the water exists at m. *But that’s precisely my view*. And merely asserting a denial of my view is no grounds for rejecting said view. Note, moreover, that the onus in the present dialectical context is *not* on *me* to positively demonstrate why (i) and (ii) suffice to explain S’s existence at m; rather, *you* are the one giving a positive argument here, and hence *you* are the one who needs to give *me* sufficient reason to think my view is *false*.”

Moreover, while we do not need to offer positive justification for our criticism to succeed, there *is* a plausible justification for why something like (i) and (ii) *do* suffice to explain S’s existence at m. For S to *fail* to exist at m despite existing through $[m^*, m)$, where $m^* < m$, is for some *change* to occur.⁷ But per the Aristotelian proof itself, a change occurs only if some factor causally induces said change. Hence, if no factor causally induces a change, then the change will not occur. Thus, if no factor causally induces S to fail to exist at m despite existing through $[m^*, m)$, then S exists at m. Once we add that nothing came along to causally induce S’s cessation—that is, once we add that nothing destroys S from m^* to m—it simply follows that S exists at m. (See Sect. 4.3 for more on this line of reasoning.)

Here, we seem to have a perfectly respectable, perfectly legitimate explanation of S’s existence at m. And it does, indeed, tell us how S exists at m. We have offered a straightforward, illuminating deduction from the explanatory facts cited (namely, (i) S existed immediately before m, and so S’s cessation at m would constitute a change; (ii) nothing causally induced S’s cessation at m (i.e., nothing destroyed S from the immediately prior moment(s) through m); and (iii) a change occurs only if some factor causally induces said change). And so we do, indeed, have a sufficient explanation for S’s existence at m, one that does not adduce some extrinsic sustaining efficient cause. For us at least, the explanation certainly removes mystery as to why or how S exists at m. And unlike what allegedly afflicts the explanatory facts adduced in the quoted passage above from Feser (2017, p. 26), the present

⁷ “[m^*, m)” is notation that represents an interval of time that *includes* m^* but does *not* include m, and “ $m^* < m$ ” means that m^* is *earlier than* m.

explanation *does*, indeed, tell us how S exists at m. (We discuss and defend explanations of persistence along similar lines in Chap. 6.)

But perhaps Feser might argue that we have clear experiential cases wherein more fundamental realities efficiently causally sustain less fundamental realities, and hence we have grounds for holding that premise (7) is true. One might, for instance, draw on what Feser writes here:

The potential of the coffee to exist here and now is actualized, in part, by the existence of the water, which in turn exists only because a certain potential of the atoms is being actualized, where these atoms themselves exist only because a certain potential of the subatomic particles is being actualized. (2017, pp. 26–27)

However, identifying these things as efficient, sustaining causal actualizers of the existence of the coffee is a mistake.⁸ Notice that the entities cited are actually *parts* of the coffee: water is a *constituent* of coffee, atoms are *constituents* of water, the subatomic particles are *constituents* of the atoms, and so on. Why is identifying parts of substantial wholes as sustaining efficient causal actualizers of those wholes mistaken?

One reason derives from a defensible, broadly Aristotelian-style view of the relation between parts and the substantial wholes they compose. According to this view, the identity of a substance's parts is grounded in the identity of the whole substance—whole substances are in some sense prior to and more fundamental than their parts. So, for instance, something's being *your kidney* seems to presuppose the more fundamental reality of *you* as a substantial unity. Parts, then, *presuppose* the (ontologically) prior existence of their substance and thus cannot efficiently causally explain the substance's existence—at least under this Aristotelian-style view. To the extent that this view is plausible or defensible, it presents a rebutting defeater; and to the extent that the defender of the aforementioned identification fails to rule this view out, it presents an undercutting defeater.

A second reason why one would be mistaken to identify parts of a substance as efficient sustaining causes thereof is that various metaphysical theses within Aristotelianism would undermine the appeal to parts as sustaining causes. For *parts* of substances do not exist in actuality (and thus exist only in *potency*). Feser writes, for instance, that “the hydrogen and oxygen are in the water only *virtually* rather than *actually*. This is evident from the way water behaves ... Something similar can be said of the other chemical elements, and of quarks and other particles present in inorganic and organic substances” (2014, p. 197). But if the parts of a substance do not exist in actuality, then they cannot actualize the existence of the substances of which they are constituents. This follows straightforwardly from the Aristotelian proof's causal principle, according to which things can only be actualized by something *actual*.

⁸Remember, Feser needs to pinpoint efficient sustaining causal actualizers of *existence*. For the Aristotelian proof sends us off on a regress of efficient causal actualization, subordinated per se, of “the very *existence* of a thing” (2017, p. 26). Finally, note that we are *not* here claiming that Feser thinks that the constituents he adduces are, after all, sustaining efficient causes. We are simply considering a hypothetical justification of premise (7) on Feser's behalf.

The above two problems for the appeal to proper parts as efficient causes of their wholes are technically *conditional* in nature: *to the extent* that one finds such Aristotelian views of substances plausible (or even rationally defensible), one has *pro tanto* reason to reject (or doubt) the appeal to parts as efficient causes of their wholes.

Here are three further responses to an appeal to parts as sustaining efficient causes of their substantial wholes. First, we've been given no reason why a relation of *composition* is also a relation of *efficient causal actualization*. Second, we've been given no reason why such causes count as *efficient* rather than *material* causes. Third, because the per se chain generated by parts "sustaining" their substantial wholes involves the more fundamental members *composing* less fundamental ones, the first member in such a series will simply be an uncomposed composer. But—given Feser's (and classical theism's) model of God—God is *not* a component of anything.⁹

As a result of our analysis in this section, we are left to conclude that premise (7) has not been adequately justified. In the next section, we raise another undercutting defeater for the Aristotelian proof.

3.4 Per se Chains

To begin our undercutting defeater, we propose a new necessary condition for per se chains. Our proposal satisfies the following conditions: (i) the proposal is *prima facie* plausible; (ii) the proposal is explanatorily powerful; (iii) if true, the proposal would undermine the Aristotelian proof; and (iv) neither the Aristotelian proof nor what is said in justifying its premises gives those who hold to the proposal (or are agnostic on the proposal) reason to abandon their position.

⁹Feser gives another argument for requiring a concurrent sustaining cause of (at least material) substances from the interdependence of form and matter: "the prime matter of a material substance depends for its concrete existence on the substance's substantial form, and the substantial form depends for its concrete existence on being realized in prime matter. Thus, we would have an explanatory vicious circle unless there were something outside the form- matter composite that actualizes it or keeps it in being" (2017, p. 29). We respond to this argument at length in Sect. 7.3.5, but here's a brief overview of some of our responses. First, the argument gives inertialists who don't already accept hylemorphism no reason to change their position. Second, vicious circularity is impossible *regardless* of whether the viciously intertwined things are undergirded by some outside explanation, since vicious circularity involves something being both prior and posterior to itself, which is absurd. Thus, appeal to an outside cause doesn't resolve anything. Third, even granting the need for an explanation outside the form and matter, an outside explanation *need not* be in terms of a concurrent efficient sustaining cause. It could instead consist in any of the existential-inertia-friendly explanations developed in chap. 6. Fourth, the argument applies only to material things and thus—even if successful—doesn't rule out inertially persistent non-material things.

The proposal runs as follows: A per se, sustaining cause C is required for substance S's being in condition or outcome O only if (i) there is some causal factor or influence F—intrinsic or extrinsic to S—acting on S to bring S toward some condition or outcome $\sim O$; (ii) F is a *net* factor in the absence of C's causal operation; and (iii) S (or some state of affairs involving S) is in condition or outcome O distinct from $\sim O$.¹⁰ We will clarify the proposal in the paragraphs that follow. For now, we emphasize that the proposal only specifies a necessary condition for per se chains—it does not purport to provide a full set of necessary and sufficient conditions for per se chains. As we will see, however, the proposal provides a foundation for an undercutting defeater of the Aristotelian proof.

Let's begin with the proposal's *prima facie* plausibility by first considering one of Feser's examples of per se causal chains. In explaining why a coffee cup is three feet above the floor, Feser writes that the cup "is sitting there at that moment only because the desk is holding it up at that moment, and the desk is holding it up at that moment only because it is in turn being held up, at that same moment, by the floor" (2017, p. 21). Other (relatively) uncontroversial examples of per se causal chains include a lamp being held aloft by chains, in turn being held aloft by the ceiling, and so on; the stone moved by the stick, in turn moved by the hand, and so on; and one gear being turned by another gear, which is being turned by a further gear, and so on.

Notice, though, that in each of these chains, the principal reason concurrent causal sustenance is required is plausibly that, *absent* such sustenance, there is some "net causal factor" that is causally contributing to a different outcome. In other words, the causal operation of a sustaining, per se cause C seems required precisely *because* C acts against what would otherwise be a net causal factor towards some different outcome.

To appreciate the above diagnosis, consider again Feser's example. The reason that, absent the table's existence, the cup would revert to the ground is that the cup requires causal sustenance to remain in the air; and, in turn, the cup requires causal sustenance to remain in the air because there is a net causal factor (namely, gravity) operating on the cup that the table is actively preventing from achieving its outcome (in this case, attraction toward the center of Earth's mass). Plausibly, the same applies to the other examples of per se chains. For instance, some net causal factors operate on the stone to keep the stone stationary (friction, gravitational and normal forces, and so on). A concurrent sustaining cause of the stone's motion seems required precisely *because* such a cause contravenes the causal activity of the friction, gravity, etc. toward the outcome of stationary spatial position.

At the very least, then, it's *prima facie* plausible that per se chains require that there is either (i) a causal influence that inclines things toward outcome $\sim O$ that is contrary to the outcome O produced by the causally sustaining intervention, or (ii) a natural tendency, inclination, or disposition of a thing toward $\sim O$ that is actively being suppressed by the causal sustainer in order to maintain O.

¹⁰ By a "causal factor", we mean a *vector-like causal influence*. An *intrinsic* causal factor would be something like a tendency, inclination, or disposition inherent to a thing. An *extrinsic* causal factor would be something like the effect of gravity, friction, and so on.

Let's now consider the proposal's explanatory power. Consider, first, that the proposal seems to nicely capture each uncontroversial case of per se chains. As we've seen, in uncontroversial cases of per se chains (the cup held on the table, the chains held aloft, the hand-stick-stone, the gears, etc.), the non-fundamental members (i.e., the members being causally sustained by the primary or fundamental member) are invariably found to be under the influence of causal factors V that incline them toward a definite outcome ($\sim O$)—and the primary, sustaining cause invariably *counteracts* V with a causal factor (with either equal or greater magnitude than V) that is in the opposite “direction” of V (i.e., toward O instead of $\sim O$).

Second, the proposal nicely explains why the non-primary, less fundamental members require a sustaining cause. For it would simply be inexplicable if S retained its condition or outcome O in the *presence* of net causal factors V inclining S toward $\sim O$ and in the *absence* of some primary, sustaining cause that counteracts V to keep S in O. It is precisely for this reason that causal sustenance is needed if the less fundamental members are to retain their condition, property, or outcome O. The proposal therefore seems to provide an illuminating explanation of this aspect of per se chains.

Third, the proposal also explains why per se chains plausibly cannot regress infinitely (in the sense of having infinitely many non-fundamental members without some fundamental sustaining cause of the series). For suppose the proposal is true. Then there's no surprise that infinite chains (subordinated per se) of non-fundamental members (without a primary, sustaining cause) are impossible. For then there is a net causal factor or group of factors acting on the members of the chain to bring them *out* of O without anything *counteracting* such factors. Once again, it would then be inexplicable why or how the infinite chain's members *retain* condition, property, or outcome O.

Fourth, the proposal can also explain the *wholly derivative* nature of per se chains, something Caleb Cohoe identifies as integral thereto:

An essentially ordered causal series is asymmetric, irreflexive, and *wholly* derivative. The subsequent members ... serve as causes *only* insofar as they have been caused by and are effects of *all* the preceding members. Because these intermediate causes possess causal powers only by deriving them from all the preceding causes, they need a first and non-derivative cause. (2013, pp. 839–840)

For if the proposal is true, then the less fundamental members' being in condition O is wholly due to the sustaining cause that provides the counteracting causality. The less fundamental members wholly derive their being in condition O from the primary member which provides the counteracting causality; they are in O only insofar as the primary member continuously and concurrently provides the counteractive causality. And for each member M in the chain, M's being in O depends on all

previous members insofar as the non-primary previous members “channel” the causal influence to M from the primary cause C.¹¹

Fifth, the proposal accounts very well for cases where, plausibly, *no per se* sustaining cause is needed. For instance, return to Feser’s cup. Plausibly, absent any gravitational influence pulling the cup down, the cup *simply retains* the cup’s spatial location without causal sustenance. Consider a world from which gravitation is absent. Suppose that a person, Joe, inhabits such a world. When Joe places a cup in front of him, without gravitational or other influences to act on the cup, the cup simply retains its position relative to Joe. (An approximation of this is empirically confirmed by, e.g., astronauts on the ISS.) Plausibly, then, the only reason the cup would *fail* to remain three feet above ground on Earth (in the *actual* world) is because there is a net causal influence acting on the cup to pull the cup toward a given outcome. And the reason the cup is *in fact* able to remain three feet high even in the presence of (what would otherwise be) a net causal factor is because some C is actively concurrently preventing the net factor from eliciting its characteristic outcome. C accomplishes this by providing a causal factor or influence towards an outcome contrary to that dominant in C’s absence.

But *absent* a tendency or causally inclining factor toward *either* O or ~O, it seems plausible that S will simply remain in the condition or state S is in, as there would be no reason or explanation as to why S deviated away from the outcome in which S actually finds itself. And this is precisely what a cup moved far away from gravitational influences seems to reveal: although the cup by itself has no capacity or causal inclination to be in any particular location, the cup will nevertheless remain in the actual location L in which the cup finds itself (relative to some reference frame) without requiring an external causal factor keeping the cup there. And again, this is plausibly because (i) the cup is *presently* in L; (ii) any deviation from L would be inexplicable in the absence of a tendency or causal factor inclining the cup away from L; and (iii) there is no such tendency or causally inclining factor operative.

3.4.1 Undercutting Defeater

With the plausibility and explanatory power of the proposal covered, we can now see why the proposal provides an undercutting defeater for the Aristotelian proof. Applying the proposal to a substance’s *actual existence*, we get the following: a per se, sustaining cause C is required for S’s actual existence only if (i) there is some factor or influence F (either intrinsic or extrinsic to S) acting on S to bring S toward non-existence; (ii) F is a *net* factor or influence in the absence of C’s sustenance; and

¹¹ Note that we’re not claiming that this is exactly how Cohoe would analyze the situation. As we emphasized at the beginning of this section, we’re offering a *new* proposal. Our purpose in discussing Cohoe is to emphasize how the proposal we’re offering, if true, provides a neat explanation of some of the integral features of such chains that Cohoe identifies. (For further characterization of per se chains from a Thomistic perspective, see Kerr 2012, 2017.)

(iii) S actually exists such that *actual existence* is distinct from the outcome of *non-existence*.

But here's the rub: on the basis of the Aristotelian proof's premises and what Feser says on their behalf, conditions (i) and (ii) have simply not been justified as holding. Yet these are *necessary* conditions (per the account in question) for the requirement of a sustaining cause. That is, an object requires a sustaining cause *only if* (i) and (ii) are met. But as we've seen, nothing in the Aristotelian proof justifies thinking (i) and (ii) are true. Thus, merely on the basis of the Aristotelian proof and what Feser says on its behalf, we are not justified in thinking (i) and (ii) are true. Suppose, then, that our proposal is true. Since (per our proposal) some object S requires a sustaining cause *only if* (i) and (ii) are true, and since the Aristotelian proof doesn't justify thinking (i) and (ii) are true, it follows that the Aristotelian proof doesn't justify the claim that S requires a sustaining cause.¹² Thus, the need for a per se, sustaining cause of S's actual existence, as espoused in premise (7), has not been adequately justified. Hence, if our proposal is true, then premise (7) has not been adequately justified.¹³

To put the problem differently: under our proposal, if substance S lacks a tendency *either way* (neither towards persistent existence nor existential expiration/annihilation), then once placed in condition O (i.e., once brought into actual existence), S will simply remain in O as a form of *stasis* without requiring any sustaining cause. Plausibly, any *deviation* from the actual state, condition, or outcome O in which S finds itself would be inexplicable in the absence of (i) a tendency toward ~O and (ii) a net causal factor inclining S towards ~O. But, importantly, Feser has provided those who either accept or are agnostic on our proposal no reason to abandon their position. The justifications Feser proffers on behalf of premise (7) demonstrate neither (i) the falsity of our proposal nor (ii) the existence of either (a) a tendency¹⁴ of things to expire or annihilate or (b) a net causal factor "pulling" or "inclining" things toward non-existence at any moment at which they exist. And as we've seen, given our proposal, (i) and (ii) are precisely what *need* to be ruled out in order to affirm premise (7).

Before turning to some objections to our proposal, some notes are in order. First, remember that the onus is not on *us* to *positively justify* our proposal concerning essentially ordered series. All we need to do is point out that nothing Feser says on behalf of the Aristotelian proof provides someone who *does* accept (or is agnostic on) our proposal sufficient reason to change their mind, and that this is precisely

¹² This follows provided we accept a kind of epistemic modus tollens (or epistemic closure principle)—if we know that *p* entails *q*, and we know that we are inadequately justified in accepting *q*, then we know or are at least in a position to know that we are inadequately justified in accepting *p*. We will simply assume this version of modus tollens for the purposes of our undercutting defeater.

¹³ We will formalize this reasoning into an eight-step argument in response to the third objection considered in the next subsection (Sect. 3.4.2).

¹⁴ A "tendency" does not only mean a probabilistic disposition; it could also mean an immediate reversion to another state or condition—or, in the case of non-existence, an immediate reversion to the sheer absence of states or conditions.

what he would *need* to do for his proof to succeed. Second, note that we have not merely offered our proposal as a plausible way of interpreting some specific examples of per se chains. Not only did we explain the intuitive plausibility behind the proposal, but we also considered how the proposal provides a powerful explanation of a whole host of facts pertaining to per se series, explicability, and inertial location. We've argued that our proposal provides a necessary condition on per se chains *as such*.

Third—and note that this is not required for our criticism to succeed—we actually intimated a positive argument for our proposal in the form of an *explicability argument*. The argument, if successful, applies universally and in the abstract. Formalized, the argument goes something like:

1. If S is placed in condition or outcome O, then in the absence of both intrinsic causal factors (a tendency toward $\sim O$) and extrinsic causal factors (some cause that brings S out of O), S failing to remain in O would be an inexplicable cessation of state.
2. But there cannot be such inexplicable cessations of state.
3. Hence, if S is placed in O, then in the absence of both intrinsic and extrinsic causal factors, S will remain in O. (1, 2)
4. If (3) is true, then the only case in which something disjoint from S is needed for S to remain in O is when there is either an intrinsic or extrinsic causal factor inclining S toward $\sim O$.
5. If the only case in which something disjoint from S is needed for S to remain in O is when there is either an intrinsic or extrinsic causal factor inclining S toward $\sim O$, then our proposal is true.
6. So, our proposal is true. (3–5)

We're open to this argument being just another (perhaps more complicated) way of putting the same point we make in Sect. 4.3 in the next chapter. Our point in including the argument is that it shows that our account is not gleaned from a mere examination of particular instances of per se chains and their contingent features; rather, our account is based on perfectly general considerations pertaining to explicability. We will not dwell on the argument further, though, since we have already spilled ink above justifying (or, at least, *rendering plausible*) the argument's central premises.¹⁵ (We reiterate, though, that we needn't offer *positive reasons* for our account; we need only show that nothing Feser says on behalf of the Aristotelian proof offers any reason to *rule it out*. But positive reasons only *help* our case.)

Let's move on, then, to some objections to our account.

¹⁵An objection we consider in Sect. 4.4 will be relevant here. The objection is essentially that O's cessation can be explicable despite there being no factor that *causally* induces O's cessation at t. Instead, we need only cite the *removal* or *absence* of a causally necessary condition for O's *persisting* through t. This objection targets premise (1). We will reserve our response to this objection for Sect. 4.4.

3.4.2 Objections

Objection. While the proposal is plausible for many cases of per se chains, the proposal fails for other cases. Consider, for instance, the illumination of the moon's surface. Some Thomists (e.g., Kerr 2015, p. 177) are fond of providing the illumination of the moon's surface as an example of a per se causal chain.¹⁶ But the illumination of a surface does not seem to involve a tension between two or more counteracting vector-like causal factors.

Reply. We have four responses.

First, it's not clear that the case of illumination is, after all, a per se causal chain. Let's just focus on the case of the moon's present illumination. The causal power or property of the series here is presumably something like *being illuminated*. What is the per se cause of this property? It cannot be the sun. For if you removed the sun, the moon would remain illuminated for about eight minutes. But the removal of a per se cause collapses the causality of the chain, such that it necessitates the removal of the chain's causal power/property. So, the sun is not the per se cause here. What, then, *is* the per se cause? It won't be any of the light in the space between the sun and the moon, since that light has nothing to do with the moon's current illumination. Nor will it be any of the light on its way to the Earth from the moon. The only candidate per se cause, then, would seem to be the light (or the collection of photons) currently "striking" or "bouncing off" the moon's surface. But isn't that the very thing that being illuminated *consists in*? In other words, the "effect" in this per se chain is x being illuminated. But x being illuminated seems to be nothing other than light striking/bouncing off x. In that case, though, the effect *just is* what we previously took to be the only candidate cause (viz. the light striking/bouncing off x, where x is the moon). But surely that's absurd; a cause is not identical to its effect. Supposing that the moon's present illumination results from a per se causal chain therefore seems to land us in absurdity. The underlying problem seems to be that we only have a *single event* here: light presently bouncing off the moon. We don't seem to have two distinct events here, and so *a fortiori* we don't seem to have a per se series of distinct events (or, as the case may be, objects) subordinated one to another as causes and effects.

Our second response is a dilemma: either per se causal chains can have members at distinct times or not. Suppose that per se causal chains cannot have members at distinct times. In that case, it's unclear whether the illumination of the moon is the result of a per se causal chain for precisely the reasons adduced in our first response. If the members of a per se chain must all be located at the same time, then the per se cause of the moon's illumination could only be the light currently bouncing off the moon. But, again, this seems to be what the moon's illumination *consists in* and

¹⁶There are at least two ways to understand illumination: (i) the *experience* of the object's being illuminated (which requires light to bounce off the object and reach our retinas), and (ii) the bouncing of light off the object itself. The latter understanding is used here.

hence couldn't be the efficient per se *cause* thereof. At the *very* least, it's not at all clear, under this horn of the dilemma, whether the moon's illumination has a per se cause.

But suppose instead that per se causal chains can have their members at distinct times, so that (for example) a proximate efficient cause can act at a time before the effect is produced in its patient. Under this horn of the dilemma, causes can (though perhaps needn't) precede their effects. One could thus reject that per se chains are essentially concurrent chains of dependence but are instead, at least sometimes, transtemporal. But once we allow for the possibility of transtemporal causal series, the proponent of existential inertia—the thesis that some temporal concrete objects persist in the absence of both sufficiently destructive factors and external sustenance/conservation—has a ready reply: with the legitimacy of transtemporal causal chains in hand, we can seemingly account for persistence in terms of causal links between the successive phases of an object's life without recourse to any extrinsic sustaining cause. Of course, we might still need to explain the first moment in an object's life, and that first moment will presumably require explanation from without, but the object will not require a continuously concurrent, sustaining, outside cause.

Our third response is that *even if* the moon's present illumination *is* the result of a per se causal chain, it's not clear why our account fails to capture this case. The vector-like causal or explanatory factors that maintain the non-illumination of the relevant surface could plausibly be (i) the nature of reflective surfaces and (ii) the absence of light in the surface's ambient environment. The former is an intrinsic explanatory factor while the latter is an extrinsic explanatory factor. Both (i) and (ii) may jointly comprise a kind of causal or explanatory vector directed towards the outcome or condition of non-illumination. A *counteracting* causal or explanatory vector would either alter the nature of the reflective surface (by, say, providing the surface some light-emitting property) or the extrinsic environment (by introducing light). Thus, if Feser wishes to locate existence within a per se chain, he must—in a principled, non-question-begging manner—point to some intrinsic or extrinsic fact about act-potency composites in virtue of which they require a counteracting vector in terms of per se causal sustenance. And as we argued in the previous section, this is something he has not yet done.

Fourth, even if the case of illumination is a per se causal chain, and even if our account fails for illumination, the onus is on *Feser* (and proponents of the Aristotelian proof) to justify why existence at a given moment is more like the case of illumination than the other cases that our account *does* capture (e.g., the cup's location). But, importantly, Feser (2017, ch. 1) has not justified this. Thus, we still have an undercutting defeater on our hands *even if* our account fails to capture some cases of per se causal chains.

Objection. Feser objects to the account as follows:

But [Schmid's necessary condition for per se chains] is simply wrong. What Schmid is describing is at most a contingent feature of certain specific *examples* of essentially ordered causal series. It is not a necessary condition of all essentially ordered series *as such*. For *B* to be a merely secondary cause of *C*, all that is required is that *B* lack any intrinsic power to

produce *C*. There *needn't* be (though of course in some cases there *could* be) a countervailing factor (whether some tendency within *B* or some causal power external to *B*) positively acting to *prevent B* from producing *C*. There need merely be the absence in *B* of any positive tendency to produce *C*. A primary cause *A* need merely impart to *B* the needed causal power. *A* needn't, either alternatively or in addition, *counteract* something that prevents *B* from exercising the needed power. (Feser 2021)

Reply. This objection amounts to simply *asserting* that our necessary condition for per se chains is false. To show why the objection contains nothing but assertions, let's go through each claim:

Feser: "What Schmid is describing is at most a contingent feature of certain specific *examples* of essentially ordered causal series."

Response: The proposal in question is precisely one according to which this is *not* a mere contingent feature of certain specific examples of essentially ordered causal series. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "It is not a necessary condition of all essentially ordered series *as such*."

Response: The proposal in question is precisely one according to which this *is* a necessary condition. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "For *B* to be a merely secondary cause of *C*, all that is required is that *B* lack any intrinsic power to produce *C*."

Response: The proposal in question is precisely one according to which this is *not* all that's required. According to the view, some counteracting causal factor is also required. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "There *needn't* be (though of course in some cases there *could* be) a countervailing factor (whether some tendency within *B* or some causal power external to *B*) positively acting to *prevent B* from producing *C*."

Response: The proposal in question is precisely one according to which there *need be* such a factor. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "There need merely be the absence in *B* of any positive tendency to produce *C*."

Response: The proposal in question is precisely one according to which this is *not* all that's needed; there need *also* be a counteracting factor. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "A primary cause *A* need merely impart to *B* the needed causal power."

Response: The proposal in question is precisely one according to which this is *not* all that's needed; the primary cause need *also* provide a vector-like causality canceling the counteracting factor. Thus, Feser has simply *asserted* that the proposal is false.

Feser: "A needn't, either alternatively or in addition, *counteract* something that prevents *B* from exercising the needed power."

Response: The proposal in question is precisely one according to which there *need be* such counteraction. Thus, Feser has simply *asserted* that the proposal is false.

The mere assertion of a view's falsity is no objection to the view. Thus, Feser's objection fails. Let's consider another objection from Feser.

Objection. Feser writes that, on our proposal, a "primary cause standing at the head of an essentially ordered series would be needed only if there *were* some destructive factor that needed to be counteracted. Since there isn't such a destructive factor, there is no need to appeal to such a series" (2021). For Feser, though, this is problematic, since it "simply assumes" an existential inertial model of persistence—"something which, again, I [Feser] have argued against in the book and elsewhere, and which Schmid does nothing to defend" (2021a, b).

Reply. This is wrong. First, our proposal doesn't simply assume existential inertia; as we showed in the previous subsection, we provided an explicability-based argument in favor of the proposal—an argument which, if successful, *justifies* existential inertia.¹⁷ Second, we've already addressed Feser's defenses of premise (7)—the premise that the existence of S at any given moment presupposes the concurrent actualization of S's potential for existence—and hence we've already addressed his criticisms of existential inertia in Feser (2017, ch. 1). Third, it's irrelevant whether our undercutting defeater here does anything to positively justify the proposal. The onus is not on *us* to positively justify the proposal; all we need to show is that nothing Feser says on behalf of premise (7) gives those who *do* accept (or are agnostic on) the proposal sufficient reason to *abandon* their position.

To mount our criticism, then, all we need to do is to point out that (i) nothing Feser says on behalf of premise (7) gives those who accept or are agnostic on our proposal of per se chains sufficient reason to abandon their position, and that (ii) this constitutes an undercutting defeater for the Aristotelian proof, *so long as* Feser has also not provided any justification as to why the two necessary conditions of our proposal are satisfied. For purposes of clarity, here is our criticism in premise-by-premise form:

1. If our proposal is true, then a sustaining cause C is required for S's actual existence only if (i) there is some F (either intrinsic or extrinsic to S) acting on S to bring S toward non-existence; (ii) F is a net factor or influence in the absence of C's sustenance; and (iii) S actually exists such that actual existence is distinct from the condition or outcome of S's non-existence.
2. Suppose (for conditional proof) that our proposal is true.
3. So, a sustaining cause C is required for S's actual existence only if (i) there is some F (either intrinsic or extrinsic to S) acting on S to bring S toward non-

¹⁷This explicability-based argument (in non-syllogistic form) is also clearly present in Schmid (2021b), to which Feser is responding in the quoted passage.

- existence; (ii) F is a net factor or influence in the absence of C's existential sustenance; and (iii) S actually exists such that actual existence is distinct from the outcome of S's non-existence. (1, 2)
4. On the basis of the Aristotelian proof and what's said on its behalf, conditions (i) and (ii) have not been justified.¹⁸
 5. So, on the basis of the Aristotelian proof and what's said on its behalf, the requirement of a sustaining cause for S's actual existence has not been justified. (3, 4, epistemic modus tollens)
 6. If (5) is true, then the Aristotelian proof faces an undercutting defeater.
 7. So, the Aristotelian proof faces an undercutting defeater. (5, 6)
 8. So, if our proposal is true, the Aristotelian proof faces an undercutting defeater. (2–7, conditional proof)

But perhaps someone will object, at this point, that Feser addresses existential inertia elsewhere, and hence he already (indirectly) tackles our proposal of per se chains. However, we have already addressed what Feser says in Feser (2017, ch. 1) on behalf of premise (7) and hence against existential inertia. We will address Feser's criticisms of existential inertia from his other publications in Chap. 7. That leaves what Feser says in Feser (2017, p. 233), to which we turn now.

Feser's first point is that the proponents of the existential inertia thesis "never explain *exactly what it is* about a material object or any other contingent thing that could give it this remarkable feature" (2017, p. 233). We have four responses.

First, one might interpret Feser here as treating inertial persistence as a feature (i.e., attribute or property) of things. But this is not implied by the existential inertial thesis or the various metaphysical accounts of the existential inertia thesis.

Second, if existential inertia is offered as an *undercutting* defeater, then it's simply irrelevant whether proponents of existential inertia explain exactly what it is about objects or reality that explains their inertial persistence. Again, detractors of an argument only need to point out that nothing in the argument or what's said on its behalf provides those who *do* accept an alternative view (or are agnostic on the matter) sufficient reason to abandon their position. Thus, detractors need not spell out exactly what it is about objects or reality that explains their inertial persistence.

To see why detractors need not spell this out, imagine that a physicalist mounts an argument against dualism. Suppose that one of the premises in the physicalist's argument assumes or otherwise requires that nothing about a non-physical mind could explain consciousness. Now suppose the dualist points out that nothing in the physicalist's argument (and what's said on its behalf) provides a dualist any reason to abandon their position that the non-physical mind explains (or *might* explain) consciousness. Next, suppose the physicalist responds by saying "but you haven't explained *exactly what* features of the non-physical mind explain consciousness." The physicalist's response is confused. The *physicalist* is the one offering a positive

¹⁸ Strictly speaking, we only need a disjunction: either (i) or (ii) hasn't been justified. But the conjunctive claim is true, so we'll use that.

argument purporting to demonstrate the falsity of dualism. The onus is thus not on the *dualist* to show that there *is* something about the non-physical mind that explains consciousness; the dualist need only point out that nothing in the physicalist's argument succeeds in showing that there *couldn't* be something about the non-physical mind that explains consciousness. In this dialectical context, whether the dualist has done anything to positively show how the non-physical mind explains consciousness is plainly irrelevant. What matters is that the *physicalist* has failed to show that dualism *couldn't* (or *doesn't*) explain consciousness.

Third, Feser's claim that proponents of existential inertia never explain what it is about objects (or reality) in virtue of which inertial persistence obtains is simply false. For example, consider Beaudoin's (2007, pp. 88–89) account. For Beaudoin, the explanation of why inertially persistent object O continues to exist is the following conjunction: (i) the only power capable of annihilating O has thus far been unexercised, and (ii) O lacks a tendency to spontaneously disappear. For if O lacks such a tendency, then O will not spontaneously disappear unless O is subject to some sufficiently destructive or annihilating factor (whether intrinsic or extrinsic to O). This is part and parcel of what tendencies involve: O has a tendency to manifest some outcome or undergo some process in conditions C if and only if O, when placed in C, manifests said outcome or undergoes said process. Thus, if O *lacks* a tendency to spontaneously annihilate in conditions C—say, when not subjected to sufficiently destructive or annihilating factors—then O, when placed in C, will not annihilate. And provided that O is in C—provided that there is an absence of sufficiently destructive or annihilating factors, as specified by condition (i) of the above-mentioned conjunction—it follows that O will not annihilate but will instead persist.

To be sure, we could elaborate Beaudoin's account further. We could also show how several other authors *do* explain exactly what it is about objects (or reality) in virtue of which

inertial persistence obtains.

Our point here is that whether or not you *agree* with Beaudoin's account, it's just false to say—as Feser did—that proponents of existential inertia never explain what it is in virtue of which things inertially persist. (Once more, in Chap. 6, we will develop a variety of metaphysical accounts of inertial persistence that explain precisely this.)

Feser's second point is that “[i]t is merely suggested, without argument, that things might have ‘existential inertia,’ as if this were no less plausible than the claim that they are conserved in being by God” (2017, p. 233). But, once more, it's flatly irrelevant whether a suggestion of existential inertia is accompanied by an argument. As we've seen, the onus is *not* on the detractors of an argument to *positively justify* why one of the argument's premises or assumptions is false (i.e., to positively justify why, *pace* one of the argument's premises, things enjoy existential inertia). All detractors need to do is point out that nothing in the proof or what's said on its behalf gives them sufficient reason to think the existential inertia thesis is *false*. Now, perhaps Feser is best interpreted here as asking readers to weigh the relative epistemic probability of divine conservation and existential inertia. Perhaps. But as we've been arguing (and will continue to argue in Chap. 7), Feser has failed to show

that divine conservation is more epistemically probable than existential inertia. And in the passage at hand, he makes no headway in accomplishing this feat.

Feser's (2017, p. 233) third point is that his various proofs *themselves* constitute reasons to disbelieve the existential inertia thesis. But we have already seen in this chapter that Feser's claim here is false with respect to the Aristotelian proof. Moreover, we will show in later chapters that *all* of Feser's other proofs fail in disproving the existential inertia thesis.

We conclude, then, that our new proposal concerning per se chains successfully undercuts the Aristotelian proof. We now turn to yet another criticism of the Aristotelian proof.

3.5 A Dilemma

To begin our dilemma, recall again the different causal principles Feser variously employs in connection with the Aristotelian proof:

Causal Principle 1 (CP₁): If there are a range of potentials $p_1, p_2, \dots p_n$, only one of which can be actualized at a given time t , and one of them, p_i , is actualized at t , then there is some (concurrently operative) cause which makes p_i actual at t .

Causal Principle 2 (CP₂): Whenever there is some transition from potential being to actual being—i.e., whenever something that exists in potency is brought from its (temporally or ontologically/causally) prior state of existing in potency to its state of existing in actuality—there is an already actual cause of this transition.

Recall that CP₂ was inspired by Feser's explicit usage of *going from* potency to act, which suggests a kind of transition from a prior state of potency to a posterior state of actuality.¹⁹ Now, CP₂—if applied to the very *existence* of act-potency composite substances, which is the explanandum of Feser's Aristotelian proof—seems straightforwardly incompatible with classical theism. Under classical theism, there is no being-in-potency that exists causally, ontologically, or temporally prior to creation that God causes to transition from potency to act. This problematically entails some kind of being (albeit *potential* being) existing apart from God prior to creation. So, CP₂ rules out classical theism and, *a fortiori*, any argument (e.g., the Aristotelian proof) in favor of classical theism.

But CP₁ doesn't seem much better for the Aristotelian proof. For starters—and as we saw in Sect. 3.3—it doesn't seem that Feser (2017, ch. 1) anywhere justifies a causal principle to the effect of CP₁. Instead, Feser defends a causal principle much closer to CP₂, on which every change—that is, every case where there is a prior state

¹⁹We leave open, though, whether the notion of *prior* (and its correlative notion of *posterior*) at play in CP₂ is *temporal* priority—as in, the feature or object in question exists in potency *before* it exists in act—or *ontological* priority—as in, the *potential* existence of the feature or object in question is in some manner *metaphysically prior* to its *actual* existence.

of potential that goes from that state to a state of actuality—is caused by something already actual.²⁰

For another thing—and as we explained in Sect. 3.3—CP₁ would straightforwardly debar the inference to a *purely* actual being. For suppose that the unactualized actualizer is simply a *necessary* but non-purely-actual being, α . In that case, since α is *necessarily actually existent*, there isn't a range of potentials with respect to the very *being, existence, or actuality* of α . Thus, if the causal principle at play in the Aristotelian proof were CP₁, then the Aristotelian proof would be incapable of justifying the need for a sustaining, actualizing cause of α . And in that case, the Aristotelian proof couldn't succeed in showing that the unactualized actualizer is *purely* actual, since—for all the argument shows— α could be the unactualized actualizer, and α is not purely actual.

That, then, is this section's problem for the Aristotelian proof. The problem is essentially a dilemma: the causal principle at play is either CP₁ or CP₂. But if the causal principle at play is CP₁, then the Aristotelian proof fails, as the inference to *pure* actuality is undermined. And if the causal principle at play is CP₂, then the Aristotelian proof fails, as CP₂ is incompatible with classical theism. Either way, then, the Aristotelian proof fails.

Perhaps Feser would say that we've presented a *false* dichotomy. We've presented two options and shown that there's trouble under either option, but perhaps there's a third, entirely innocuous option. In that case, instead of presenting an objection to the Aristotelian proof, we've merely shown two pitfalls that the proponent of the Aristotelian proof must avoid in order for their argument to succeed.

We have several replies. First—and this might be due to our lack of imagination—it's difficult for us to see any other plausible rendition or reading of what the Aristotelian proof's causal principle amounts to.²¹ Second, even if the dichotomy is not properly exhaustive, it's going to be difficult to find another alternative that doesn't succumb to the problems afflicting each thus-far-demarcated disjunct. If you make the principle too change- or quasi-change-centered (à la the second reading), you'll make the Aristotelian proof incompatible with classical theism on

²⁰ Feser does take a turn in his proof *away* from causally explaining change and *towards* causally explaining the momentary *existence* of substances. In itself, this is compatible with CP₂, as the “prior” in the second reading is consistent with a *causally* or *ontologically* (rather than temporally) prior state. Moreover, when Feser (2017, ch. 1) shifts his focus to causally explaining the momentary existence of substances, he doesn't stop to articulate and defend a different version of his causal principle, such as CP₁. Nevertheless, there are remaining interpretive difficulties here, which we cover in the next footnote.

²¹ What makes things a little difficult—for us, at least—is that Feser first defends a causal principle as applied to *change*, i.e., some transition from a temporally prior state of potential being to a later state of actual being. But then later in his chapter, Feser shifts his focus from change to the momentary existence of substances, applying his causal principle (or a different principle?) to the very existence of a substance at a given moment. Perhaps the causal principle is meant to be a conjunctive principle, like: in the case of change, CP₂ (or something very much like it) applies; but in the case of existence-at-a-single-moment, CP₁ (or something very much like it) applies. In any case, we can set this complication aside for present purposes.

account of entailing a state of potential being (temporally or else causally/ontologically) prior to creation. If you make the principle too cross-world-difference-centered, you'll fall into the same problems as earlier (to wit, (i) Feser doesn't justify such cross-world-difference-centered principles in (2017, ch. 1), and (ii) such principles undermine the proof's inference to α 's being *purely actual* as opposed to *necessarily actually existent while having potency for accidental change or accidental cross world variance*.) This is a very fine line to walk along, and we're skeptical that it can be walked.

3.6 Purely Actual

The problems for the Aristotelian proof don't end there. In this section, we'll argue that the Aristotelian proof's inference to the unactualized actualizer being *purely actual* is a non-sequitur on numerous fronts.

Strictly speaking, this inference is nowhere to be found in the *sylogized* proof. But the inference *is* needed to avert an obvious criticism of premise (9). Recall that premise:

- (9) A's own existence at the moment it actualizes S itself presupposes either (a) the concurrent actualization of its own potential for existence or (b) A's being purely actual.

An obvious criticism is that this is a *false dichotomy*. A's own existence at the moment A actualizes S only presupposes either (a) the concurrent actualization of A's own potential for existence, *or* (b) A's being an *unactualized* actualizer. To avoid an infinitely descending hierarchical regress of potentials for existence being actualized, the first member of said regress need only be *unactualized* in respect of its existence—that is, the first member need only have no potential for existence that needs actualizing in order for that member to exist. It's an entirely separate question whether said member is *altogether devoid* of potential.

Thankfully, Feser is aware of this problem—he recognizes the need to infer from *unactualized* actualizer to *purely actual* actualizer. Our criticism is that the inference is a clear non-sequitur, and that Feser's attempts to bridge the inferential gap fail. We'll develop this criticism in connection with both CP₁ and CP₂. Before that, though, let's get a grip on Feser's justification for the inference:

[W]hat it means for such a series to have a first member is that there is something which can impart causal power to the other members of the series *without having to have* [emphasis added] that power imparted to it—something that has its causal power in a 'built-in' or nonderivative way. Now since what is being explained in this case is the actualization of a thing's potential for *existence*, the sort of 'first' cause we are talking about is one which can actualize the potential for other things to exist without having to have its own existence actualized by anything.

What this entails is that this cause doesn't have any potential for existence that needs to be actualized in the first place. It just is actual, always and already actual, as it were. Indeed, you might say that it doesn't merely have actuality, the way the things it actualizes do, but that it just is pure actuality itself. (Feser 2017, p. 27)

Let's consider this justification on each of CP_1 and CP_2 , beginning with CP_1 . Recall:

Causal Principle 1 (CP_1): If there are a range of potentials $p_1, p_2, \dots p_n$, only one of which can be actualized at a given time t , and one of them, p_i , is actualized at t , then there is some (concurrently operative) cause which makes p_i actual at t .

Now, the claim that a hierarchical chain of causal actualizations of substances' potentials for existence at a given time t cannot descend infinitely implies that the first member of this chain is not caused to exist at t . Call this first member " α ." There cannot be a range of potentials only one of which can be actualized with respect to the very *existence* of α at t , since then α would require a cause of α 's existence at t (per CP_1). But α 's existence is not caused at t . Hence, α has no potentials pertaining to α 's very substantial *being* or *existence* at t . Hence, the substantial being or existence of α at t is purely actual, i.e., devoid of a range of potentials (e.g., parts of α that could constitute something else, or else potentials for α to cease at t , or whatever). But to infer from the pure actuality of α 's substantial being or existence at t that α is *purely actual full stop* is a non-sequitur for reasons similar to those canvassed in the previous chapter. Consider the following three propositions:

1. The substantial being or existence of α at t is purely actual.
2. The substantial being or existence of α is purely actual *simpliciter*.
3. Not only is the substantial being or existence of α purely actual, but α is purely actual in *all respects whatsoever*.

Notice that (2) does *not* follow from (1), and that even if (2) did follow from (1), (3) does not follow from (2). For all Feser's argument shows, α 's explanatory role is wholly indexed to time t . In order to be the uncaused terminus of the hierarchical chain of existential dependence at t , α need only be independent at t . And since α 's having potentials pertaining to α 's substantial being or existence at t would entail, per CP_1 , that α is dependent at t , we can conclude that α is purely actual with respect to α 's substantial being or existence at t . But nothing follows about α 's substantial being or existence at times *other than* t . There is simply nothing in CP_1 or in what Feser says in the quoted passage above that rules out α being the purely-actual-with-respect-to-its-substantial-existence terminus of the hierarchical series at t but some *other* thing, α^* , being the purely-actual-with-respect-to-its-substantial-existence terminus of the hierarchical series at $(t + 1)$. And nothing in Feser's proof rules out α having some potential pertaining to α 's substantial being or existence at $(t + 1)$. In

that case, α would not be purely actual with respect to its substantial existence *simpliciter*. And so (2) does not follow from (1).²²

But suppose (2) *did* follow from (1). Even still, Feser's inference to the pure actuality of α doesn't work. That's because (3) doesn't follow from (2). Even if α 's substantial being or existence is purely actual *simpliciter*, it doesn't follow that α is purely actual *in all respects whatsoever*. For there are potentials *unrelated* to the very substantial being or existence of their bearers, and α may very well have some such potentials. Consider, for instance, a necessarily actually existent fundamental field. (Never mind whether a necessarily actually existent fundamental field is possible or actual. The present point could be made in terms of *other* candidate necessary beings, and in any case, showing that (3) doesn't follow from (2) only requires finding a consistent, epistemically-not-ruled-out scenario in which (2) is true while (3) is false.) A necessarily actually existent field would have no potentials pertaining to the field's very being or existence—the field is necessarily actually existent and hence has no potential to cease, to begin, or to be absent from reality. Nevertheless, the field may have whole swathes of potentials unrelated to the field's very existence. For instance, the field may have the potential to have such-and-such excitations. Thus, even if (2) followed from (1), Feser's inference would still be plagued by the non-sequitur from (2) to (3).

What about CP₂? Recall:

Causal Principle 2 (CP₂): Whenever there is some transition from potential being to actual being—i.e., whenever something that exists in potency is brought from its (temporally or ontologically/causally) prior state of existing in potency to its state of existing in actuality—there is an already actual cause of this transition.

Once more, the claim that a hierarchical chain of causal actualizations of substances' potentials for existence at a given time t cannot descend infinitely implies that the first member of this chain is not caused to exist at t . And once more, call this first member " α ". Now, α does not transition from potential being to actual being with respect to α 's substantial existence at t , since then, per CP₂, α would require a cause of that transition at t . Hence, α does not transition from potential being to actual being with respect to α 's substantial existence at t . But to infer from this that α is *purely actual full stop* is a non-sequitur. Consider the following four propositions:

1. α does not transition from potential being to actual being with respect to its substantial existence at t .
2. α *cannot* transition from potential being to actual being with respect to its substantial existence at t —i.e., α has no potentials that could be reduced from potency to act in respect of its substantial existence at t , which is to say that α is purely actual with respect to its substantial existence at t .

²² One might object that α is timeless, and so α couldn't be independent (only) at t . But this objection is confused, since whether α is timeless is the very thing needing to be shown here—it is, in other words, precisely the inference being challenged. (Or, more accurately, *one* of the inferences being challenged.) Think about it like this: what reason do we have to think α is timeless? Importantly, nothing said thus far in the Aristotelian proof gives us any reason to think α is timeless, precisely because nothing in the Aristotelian proof rules out α 's merely being independent at t and only t .

3. The substantial being or existence of α is purely actual *simpliciter*.
4. Not only is the substantial being or existence of α purely actual, but α is purely actual in *all respects whatsoever*.

Importantly, (2) does not follow from (1), (3) does not follow from (2), and (4) does not follow from (3). When we considered CP₁, we saw why (4) does not follow from (3) and why (3) does not follow from (2). And (2) clearly doesn't follow from (1). Merely from the fact that α does not *in fact* transition from potency to act in respect of α 's existence at t , nothing follows about whether α can or cannot so transition. There seems to be nothing incoherent in the conjunction of (i) α does not *in fact* transition from potency to act in respect of α 's existence at t , but (ii) *in some other possible world*, α transitions from potency to act in respect of α 's existence at t . In a scenario in which this conjunction is true, α would lie outside the quantificational domain of CP₂, and hence could (for all the Aristotelian proof and CP₂ shows) be uncaused at t .

There are, then, several non-sequiturs plaguing Feser's inference to the *pure actuality* of the unactualized actualizer. Perhaps the easiest and most pressing non-sequitur, however, is the following. Suppose you're a theist who thinks that God is timeless, immutable, impassible, but nevertheless has some potential for cross-world variance (e.g., different intrinsic belief-like states, numerically distinct timeless intentional acts of creation, or whatever).²³ You then ask: why should I conclude, based on the Aristotelian proof, that God (thus understood) requires a sustaining cause?

Feser's premise (7)—according to which the existence of S at any given moment itself presupposes the concurrent actualization of S 's potential for existence—is simply irrelevant to God so construed. For premise (7) only applies in cases where things have some potential for existence. But God, so construed, is necessarily actually existent. There is no such thing as this potential in God's case.

Feser's premise (4)—according to which no potential can be actualized unless something actual actualizes it—is likewise irrelevant to God so construed. For premise (4) only allows us to infer the need for a sustaining cause when there *is*, indeed, some kind of reduction from potency to act. But in the case of God so construed, there is no reduction from potency to act in respect of God's existence, precisely because God is necessarily actually existent. God has no potential pertaining to God's very substantial being or existence, despite having various potencies for cross-world variance (on the aforementioned picture).

Nothing in Feser's proof, then, gives you any reason to think that God (so construed) couldn't be the unactualized actualizer. But in that case, nothing in Feser's Aristotelian proof justifies the inference to the unactualized actualizer's being *purely* actual. This point generalizes to *any* necessarily existent but non-purely-actual foundational being, whether that being is God or something else.

²³ If you don't like this picture—say, because you're a neo-classical theist—just substitute a temporal but necessarily actually existent God. All the same points will apply.

This point becomes clearer when one inspects the justifications Feser offers for demanding a sustaining cause in Feser (2017, ch. 1). Feser's justifications focus on contingent substances (e.g., water) whose constituents have the potential, at any given time, to exist as something else (or, as the case may be, to be absent from reality altogether). It is *precisely because* the parts have this potential (or the whole has the potential to be absent from reality) that Feser concludes there must be some actualizing, sustaining efficient cause that keeps such substances in being.²⁴ But, of course, this justification is entirely irrelevant to the existence of the aforementioned timeless, necessarily existent God with the potential for cross-world variance. Thus, Feser's own motivations for demanding a sustaining cause fail to rule out the unactualized actualizer being *non-purely-actual*. And in that case, the proof fails.

Feser's response to this worry (or, at least, what we could adopt as a response on Feser's behalf to the worry) is as follows:

For why not suppose instead that it [i.e., the unactualized actualizer or α] has potentialities which are simply not in fact being actualized, at least not insofar as it is functioning as the first actualizer in some hierarchical series of causes? Perhaps those potentialities are actualized at some other time, when it is not so functioning; or perhaps they never are.

To see what is wrong with this objection, recall once again that ... the regress of actualizers that we are ultimately concerned with is a regress of the actualizers of the existence of things. The first actualizer in the series is 'first', then, in the sense that it can actualize the existence of other things without its own existence having to be actualized. So, suppose this first actualizer had some potentiality that had to be actualized in order for it to exist. What actualizes that potential? Should we suppose that it is something other than the first actualizer that actualizes it? But in that case, the so-called first actualizer isn't really the first actualizer after all ... (2017, p. 66)

But this is clearly mistaken. Look at the assumption on which Feser is attempting to perform a reductio: "Suppose this first actualizer had some potentiality that had to be actualized in order for it to exist." As we hope is clear, there is a natural reply: the suggestion is *not* that the first actualizer has some potential that *needs* to be actualized *in order for the first actualizer to exist*. The suggestion is precisely the opposite—that the first actualizer's existence *has no such potentials*, i.e., that the first actualizer's very substantial being or existence has no potential whatsoever. The first actualizer is a *necessarily actual being* (and, we can suppose, an *essentially independent being*). The first actualizer simply enjoys potentials for *accidental* change, or potentials for *cross-world variance* in non-essential properties, or potentials for action that the first actualizer causally realizes. None of these potentials *need* to be actualized *in order for the being in question to exist*. Feser's reductio thus entirely misses the mark.

²⁴After rejecting appeals to the (sufficient) explanatory efficacy of past things, of course. We have criticized Feser's rejection here, but we set our criticisms aside for present purposes. (We also set aside the fact that there are boatloads of *other* ways to explain the monetary existence of substances that make no appeal to sustaining efficient causes—again, see chap. 6.)

Feser's rejoinder therefore fails in salvaging the inference to pure actuality. But now let's apply Feser's rejoinder to the two non-sequiturs under CP₁ and the three non-sequiturs under CP₂. Recall, for CP₁, that (2) does not follow from (1) and that (3) does not follow from (2):

1. The substantial being or existence of α at t is purely actual.
2. The substantial being or existence of α is purely actual *simpliciter*.
3. Not only is the substantial being or existence of α purely actual, but α is purely actual in *all respects whatsoever*.

Importantly, neither inference here is targeted by Feser's rejoinder. Feser indexes the hierarchical series of existential dependence in question to a particular moment of time t . Feser's supposition for reductio, then, would have to be that α has some potential for existence at t that needs to be actualized in order for α to exist at t . But that is not relevant to bridging the gap from (1) to (2), since both (1) and (2) grant that α has *no* potential for existence at t that needs to be actualized in order for α to exist at t . What Feser would *need* to establish in order to infer (2) from (1) is that (i) α has no potential for existence needing actualization at t , (ii) α exists at all other times (or else timelessly), and (iii) α has no potential for existence needing actualization at *any* such time (or else timelessly). But his reductio does nothing to establish (ii) or (iii).

A similar point applies to the inference from (2) to (3). If we grant Feser the truth of (2), Feser's supposition for reductio would then have to be that α , while purely actual with respect to its substantial existence, nevertheless has some potential *unrelated* to its substantial existence. But Feser performs no such reductio on this supposition. Indeed, what Feser *actually* performs a reductio on is irrelevant to the inference from (2) to (3), since, under (3), α does not have some potential that *needs* to be actualized *in order for* α to exist. Instead, the supposition is that α has potentials either for accidental change or accidental cross-world variance, *none* of which *need* to be actualized *in order for* α to exist.

Now consider CP₂. Recall, for CP₂, that (2) does not follow from (1), (3) does not follow from (2), and (4) does not follow from (3). We've already covered the latter two of these inferences above, since they're the same as those from the first reading. That leaves the inference from (1) to (2):

1. α does not transition from potential being to actual being with respect to α 's substantial existence at t .
2. α *cannot* transition from potential being to actual being with respect to α 's substantial existence at t —i.e., α has no potentials that could be reduced from potency to act in respect of α 's substantial existence at t , which is to say that α is purely actual with respect to α 's substantial existence at t .

But once more, Feser's reductio is irrelevant to this inference. In order to show that (2) follows from (1), Feser's assumption for reductio would have to be that α does not *in fact* transition from potency to act in respect of α 's substantial existence at t but nevertheless *can* so transition. But instead Feser's reductio supposes that α has some potential for existence that needs to be actualized in order for α to exist.

Moreover, Feser has given us no reason to think that α does not *in fact* transition from potential being to actual being in respect of α 's substantial existence at t but nevertheless *can* so transition> requires or assumes that α has some potential for existence at t that needs to be actualized at $t >$.

3.6.1 Action Follows Being

Feser elsewhere responds to the charge that his inference to pure actuality is a non-sequitur. His response is based on the principle *agere sequitur esse* (action follows being):

The principle *agere sequitur esse* basically says that these attributes and activities *cannot go beyond* that nature, any more than an effect can go beyond its efficient cause. Hence, a stone cannot exhibit attributes and activities like nutrition, growth, and reproduction, because these go beyond the nature of a stone. (2017, pp. 174–175)

Feser argues for the principle from the PSR:

If an effect could go beyond its total efficient cause, then the part of the effect that went beyond it would have no explanation and be unintelligible. Similarly, if a thing's activities could go beyond its nature—if, for example, a stone could take in nutrients or use language—then this activity would lack an explanation and be unintelligible. (2017, p. 175)

Here's how Feser applies *agere sequitur esse* to infer that the unactualized actualizer, α , cannot have potentiality:

Might not we thus say that while it [i.e., the unactualized actualizer or α] had *no* potentialities with respect to its existence, it *does* have potentialities with respect to its activity ...?

There are several problems with this suggestion, however, one of which might be obvious now that we have set out the principle *agere sequitur esse*, according to which what a thing *does* reflects what it *is*. If the first cause of things *exists* in a purely actual way, how could it *act* in a less than purely actual way? How could its acting involve potentiality any more than its existence does? A thing's existence is, after all, what is metaphysically most fundamental about it; everything else follows from that ... So, from where in its nature are the (metaphysically less fundamental) potentialities for activity that the critic suggests it has supposed to derive? (2017, p. 185).

There are at least nine reasons why this argument fails. First, as we've seen, Feser has not even established that α is purely actual with respect to its existence *simpliciter*. Hence, we cannot infer that α *acts* in a purely actual way, since the thesis that α *exists* in a purely actual way has not been established.

Second, the argument is incapable of establishing that α is purely actual even assuming that (i) α is purely actual with respect to its existence, and that (ii) α 's being purely actual with respect to its existence entails that α acts in a purely actual manner. For there are potencies that are unrelated *both* to the existence *and* actions of the substance to which they belong. In other words, even if Feser could establish (i) and (ii), he still has not established that α is purely actual *simpliciter*. Consider, for instance, *potencies to be affected* in ways unrelated to substantial change or α 's

actions. Feser may retort that this would compromise α 's role as the terminus of the per se chain of actualizations of potentials for existence, but this is simply not so; *ex hypothesi*, α is being affected (or *could* be affected) in manners *wholly unrelated* to α 's existence and α 's role as an existential actualizer that is unactualized-in-respect-of-its-very-existence. Feser's argument here is therefore unable to establish α 's pure actuality *simpliciter*.

Third, as Feser himself points out, "a thing can in a sense 'go beyond' its nature if someone makes it do so. For example, the bits of wood that make up a puppet can move when the puppeteer makes them do so, even though they cannot move on their own" (2017, p. 175). So, assuming *arguendo* that α exists in a purely actual way, α could easily behave in ways that involve actualizations of potential, so long as something makes α do so. Importantly, such behaviors need not relate to the very *existence* of α , and hence there being potentials in α relating to such behaviors is *perfectly compatible* with α 's being purely actual with respect to its existence.

Fourth, Feser equivocates on the principle *agere sequitur esse*. He first explicates the principle as something like <S cannot, of itself, perform action A if A is beyond or else at variance with S's nature>. He then switches this understanding with something like <how a thing acts reflects what the thing is>. But what does "reflect" mean? Nowhere does Feser define "reflect." More importantly, why should we accept this second understanding?

The second understanding by no means follows from the first. Setting aside the palpable vagueness of "reflects," the second reading seems more precisely formulated as <if S exists F-wise (i.e., in an F way or manner), then S acts F-wise>. This second reading—or something very much like it—is what Feser needs if he wants to infer from the fact that α *exists* in a purely actual way that α *acts* in a purely actual way. But the first understanding doesn't entail this second understanding, and the considerations adduced in favor of the first understanding (e.g., the PSR) do not support the second. From the fact that no entity can act so as to contravene (or else extend beyond) that entity's own nature, it simply doesn't follow that <if S exists F-wise, then S acts F-wise>.

Fifth, notice that, under the first understanding, the principle only states that an entity cannot do what its *essence* or *nature* precludes the entity from doing. Even if we grant Feser that α is purely actual in respect of its *existence*, we don't thereby know anything about α 's *essence* that precludes α from having existence-unrelated potentials.²⁵ Indeed, we have already seen how this could work with changeable necessary beings. Changeable necessary beings *exist* in a purely actual way, but such beings clearly can still have existence-unrelated potencies, such as potencies for accidental change or potencies for action.

²⁵Again, an existence-unrelated potential is just a potential that is *not* for the substance to exist, begin to exist, cease to exist, or fail to exist. In other words, the potential doesn't have to do with the very being or existence of the substance *as such*. For example, the potential for a dog to bark is unrelated to the very *existence* of the dog (whereas a potential for the dog to die *does* so relate).

Sixth, there are clear counterexamples to the second understanding of the *agere sequitur esse* principle. Suppose that if S exists F-wise, then S acts F-wise. Importantly, God *exists* in a necessary way. Hence, God must *act* in a necessary way. But then God is unable to perform contingent actions, such as freely creating and sustaining the universe. Moreover, recall that no entity can control its own existence because no entity can explanatorily precede its own existence. But then the principle wrongly entails that no entity acts in a way that is under its control.

Seventh, an absurd form of occasionalism—or, at least, something problematically similar thereto—seems to follow from the principle <if S exists F-wise, then S acts F-wise>. According to Feser, any non-God S has no ability of itself to exist. The manner of S's existence is hence *wholly derivative* from an extrinsic cause. S is a *mere instrument* in respect of its existence. But if S *exists* merely instrumentally, then (according to the principle) S can only *act* instrumentally. Just as S's existence is wholly instrumental (to God's causal bestowal of existence), S can only *act* in a wholly instrumental manner. Nothing other than God *truly acts of itself*; every non-God thing purely derives its "actions" in a wholly instrumental manner. Non-God things are mere instruments through which and by means of which God brings other things or states of affairs about. But this seems to be a problematic diminishment of creaturely causality. There are many more causes in the created order than *mere instrumental* causes of the creator; many created entities have *real, genuine* causal power *of themselves*. (Was Hitler a mere instrument, all of whose causal powers and all of whose *exercises* of causal powers were purely derivative from God, who used Hitler as a mere instrument to exterminate Jews? Doubtful.)

But perhaps Feser would accept this seemingly absurd conclusion. Feser writes:

Recall also the principle *agere sequitur esse*, according to which a thing's attributes and activities cannot go beyond its nature. When we combine this principle with the thesis that the sheer existence of anything at any moment depends on God's causing it to exist, we get the result that the operation or activity of anything at any moment also depends on God. For if a thing could not even exist for an instant apart from God, how could it act at any instant apart from God? If the thing has no independent capacity for existence, where could an independent capacity for action possibly come from? Existing, after all, is more fundamental than acting, since it is presupposed by acting. So, if a thing's essence gives it no capacity even to exist apart from God, it cannot intelligibly give it power to act apart from God.

So, everything that exists or could exist other than God depends at every instant not only for its existence, but also for its capacity to do anything, on God. Nothing that exists or could exist is outside the range of his power or has any power that does not derive from him. (2017, p. 206)

From the above passage, it seems for all the world to follow that Hitler's powers (and exercises thereof) *purely derive* from God. Just as Hitler's *existence* is a wholly derivative instrument of God's, so too Hitler's *actions* are wholly derivative instruments through which God acts. To us, this is a *reductio* of Feser's view.

But the view is even worse than that. For the view seems to entail that Hitler is not morally responsible for his actions. Feser infers from the fact that the *existence* of *x* is *F* (where *F*, in this case, is *dependent on God*) that the *operation* or *activity* of *x* must likewise be *F* (i.e., dependent on God). But then the following also holds:

since the *existence* of Hitler is *F* (where *F*, in this case, is *not something for which Hitler is morally responsible*), it follows that the *activity* of Hitler is likewise not something for which Hitler is morally responsible. “After all,” we could reason in parallel to Feser, “existing is more fundamental than acting, since it is presupposed by acting. So, if Hitler’s essence gives him no capacity to be responsible for his *existence*, it cannot intelligibly give him power to be responsible for *acting*.” And yet to say that Hitler isn’t morally responsible for his actions is absurd. Feser’s appeal to *agere sequitur esse* is correspondingly absurd.

Here is the eighth problem. One of Feser’s explications of the principle is that *what a thing does* reflects *what it is*. In order to infer from such a principle anything about what α *does*, we would therefore need to know *what α is*. But even if Feser has shown that α *exists* in a purely actual manner, by itself that says little to nothing about *what α is*. That α exists in a purely actual manner only tells us something about the manner of α ’s *existence*; it tells us nothing about the full breadth and depth of *what α is*.²⁶ Indeed, Feser seems to subtly beg the question here. One can only apply *agere sequitur esse* to α once one has established *what α is*; but *what α is* is the very question at issue. Hence, one cannot assume that *what α is* is purely actual in order to infer that *how α acts* is purely actual.

Ninth, Feser’s point concerning the fundamentality of existence is wrongheaded. Feser points out that existence is the most fundamental fact concerning a thing. But in order to deduce from the conjunctive proposition <existence is most fundamental to α , and α is purely actual with respect to its existence> that any *less* fundamental aspects of α (like α ’s actions) must therefore be purely actual, Feser requires a principle like the following: if x lacks *F* (e.g., potency) at one metaphysical level (or, at least, at the most fundamental metaphysical level), then x also lacks *F* at less fundamental metaphysical levels. Not only does Feser give no justification for such a principle, but the principle also seems straightforwardly false. Presumably, physical facts about humans are more fundamental than biological facts about humans. But the physical facts, by themselves, lack features such as digestion, whereas digestive features are present in human biological facts. Similarly, even though Jones’ existence is most fundamental to Jones (as we’re here granting), and even though Jones’ existence lacks features such as digestion, some less fundamental aspects of Jones do *not* lack digestion; after all, Jones can digest.

For these nine reasons, Feser’s response fails.

²⁶And we cannot (in a non-question-begging manner) assume that facts concerning α ’s existence exhaust facts concerning α , since that is part of the very question at issue (namely, whether there are or can be potential features of α despite α ’s being purely actual *with respect to its existence*).

3.7 Conclusion

We've uncovered a host of difficulties afflicting stage one of the Aristotelian proof. Premise (7) succumbs to a variety of undercutting and rebutting defeaters; the inference to *pure* actuality is riddled with non-sequiturs; the proof faces a dilemma in CP_1 and CP_2 ; and so on. Along the way, we proposed a new necessary condition for per se chains, pinpointing some of its explanatory and theoretical virtues and arguing that it undermines the Aristotelian proof.

We want to emphasize once more that the dialectical paths we've explored in this chapter are not exhaustive. For instance, the Aristotelian proof arguably presupposes that "being" or "existence" has different senses as applied to act and potency, respectively. (Feser argues precisely this in Feser 2017, pp. 176–184.) But one could legitimately argue that "being" is univocal and conclude, on this basis, that a presupposition of the Aristotelian proof is simply false.²⁷ And, of course, a whole host of other dialectical avenues are available, too. For instance, Oberle (Forthcoming) criticizes Thomistic arguments (including Feser's) for the impossibility of infinitely descending per se causal chains. We will not explore such avenues here, but noting them is important nonetheless.

We mentioned at the beginning of this chapter that existential inertia is yet another dialectical avenue for criticizing stage one of the Aristotelian proof. While we hope to have shown that stage one fails independently of existential inertia, the prospect of another serious problem for the Aristotelian proof deserves attention. Moreover, given (i) the relative dearth of scholarly literature on existential inertia, (ii) the recent flurry of work thereon, and (iii) existential inertia's applicability as either a rebutting or undercutting defeater to a whole host of arguments for classical theism, an extended treatment of existential inertia is in dire need. We turn to precisely such a treatment in the next four chapters.

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²⁷ For defenses of the univocity of being (or criticisms of the analogy of being), see (among many others) Williams (2005), D'Ettore (2018b, 2021), Alston (1993), Van Inwagen (2009), and Berman (2020). For a nice overview of such debates as they developed historically and philosophically, see D'Ettore (2018a). Other defenses of monism about being (and hence being's corresponding univocity) are found in (e.g.) Merricks (2019), Williamson (1988), McGee (2006). For criticisms of ontological monism and/or defenses of ontological pluralism, see (e.g.) Turner (2010) and Harris (2021). For an exploration of related issues from philosophers sympathetic to ontological monism, see Loux (2012) and van Inwagen (2014), and Builes (2019).

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Chapter 4

Existential Inertia and the Aristotelian Causal Principle



4.1 Introduction

In this chapter, we defend a somewhat striking thesis: the Aristotelian proof *entails* the truth of the existential inertia thesis and thereby defeats the Aristotelian proof's demand for a sustaining cause keeping objects in being. Our argument is not only of interest to philosophers of religion; it is also germane to the existential inertia debate at large and hence to metaphysicians and philosophers of time.

4.2 The Thesis

The Existential Inertia Thesis (EIT) is variously characterized.¹ Adler, Feser, Beaudoin, Audi, Schmid, and company each have different articulations of the thesis in terms of the domain of quantification, modal register, and more. We will articulate here a version of EIT we take to be a common denominator among their various characterizations. In simplest terms, EIT is the claim that at least some temporal concrete objects persist in the absence of both (i) sustenance or conservation from without and (ii) sufficiently destructive factors operative on the object(s). EIT does not aim to answer what it is *in virtue of which* objects persist; instead, EIT aims merely to *describe* the way at least some objects persist.

Before turning to our new EIT-based criticism of the Aristotelian proof, we need a clear articulation of EIT itself. For simplicity, our EIT will speak as if endurantism

¹We'll consider EIT in *much* greater detail in Chaps. 5, 6, and 7. We'll also provide our own, fully fleshed out articulation of EIT in Chap. 5. For present purposes, a simplified EIT will suffice.

is true.² But nothing hangs on this—a similar thesis can be developed *mutatis mutandis* for perdurantism. Here, then, is the thesis:

Existential Inertia Thesis (EIT): For each member *O* of some (proper or improper) subset of temporal concrete objects and for each time *t* such that *O* exists at some time *t** earlier than *t*, (i) at *t*, *O* does not concurrently ontologically depend on the existence or activity of some concrete object *O**, where *O** is not a (proper or improper) part of *O*, and (ii) if *O* is not positively destroyed within the temporal interval [*t**, *t*], then *O* exists at *t*.

First, some definitions. To *positively destroy* *O* at time *t* is to actively bring about *O*'s cessation at *t*, such that *O* endures through [*t**, *t*) but not [*t**, *t*], where *t** < *t*. *Concurrent ontological dependence* is a hierarchical explanatory dependence of a less fundamental object on the existence or activity of another, more fundamental object that exists together with the less fundamental object. As stated, under this notion of dependence, the more fundamental sustainer exists *together with* the sustained object, either at the same time as the sustained object or else timelessly.³ (Examples of ontological dependence relations include sustaining or conserving efficient causation, grounding, and functional realization.)

Second, some notes. First, our EIT quantifies only over a *subset* of temporal concreta. The fact that our EIT quantifies only over a subset of temporal concreta allows the inertialist to affirm that at least *some* temporal concreta (e.g., perhaps non-fundamental, composite physical objects) are sustained or conserved in being from without. EIT is true so long as *at least one* object persists over time in the absence of sustenance or conservation from without. Second, our EIT only specifies that each inertially persistent object *O* does not ontologically depend on concrete objects *that are not parts of O*. This allows the inertialist to affirm that inertially persistent objects can ontologically depend on their parts.

Third, a simpler statement of EIT is simply that one or more temporal concrete objects persist in existence in the absence of both (i) continuously concurrent sustenance or conservation from without and (ii) factors sufficient to positively destroy the object(s).

²This is perfectly innocuous in the present dialectical context. First, participants in the debates about EIT almost uniformly speak as if endurantism is true. Second, Feser's Aristotelian proof is itself cast in terms that speak as if endurantism is true. Third, an eternalist-perdurantist view of temporal reality is arguably incompatible with Feser's premise (2), i.e., the claim that change is the actualization of potential. For eternalist-perdurantists, there *is* change over time. But such change doesn't involve any times or any contents of times (e.g., substances, events, properties, etc.) being merely *potentially* existent and going *from* potentially existent *to* actually existent. Instead, all times (and contents thereof) are equally, eternally, and tenselessly actual. So, on eternalist-perdurantism, change is *not* the transition or reduction from potential to actual, *pace* premise (2). Thus, speaking as if endurantism is true is perfectly kosher in the present dialectical context. Fourth, we could easily develop a perdurantist-friendly articulation of EIT, and our overall argument would be unaffected. (In fact, we do precisely this in Chap. 5.)

³We'll clarify this notion in greater detail in Sect. 5.3.4.

In the following section, we will not argue for *or* against EIT. Our argument, instead, is that (i) the Aristotelian proof *entails* EIT, and that (ii) this fact undermines the Aristotelian proof. Thus, if we are right that the Aristotelian proof entails EIT, then the Aristotelian proof is self-undermining.

4.3 The Argument

According to the Aristotelian proof's causal principle (CP) captured in its fourth premise, no potential can be actualized unless something already actual causally actualizes that potential. Suppose object *O* exists at time *t*. Now, for *O* to go out of existence at some arbitrary *t'* (such that $t' > t$) is for a change to occur—it is for *O*'s potential for cessation to be actualized. But since (per CP) a potential can be actualized only if something already actual causally actualizes that potential, it follows that *O* could go out of existence at *t'* only if something already actual causes *O* to cease to exist. So, if nothing already actual causally actualizes *O*'s going out of existence at *t'*, *O* will not go out of existence at *t'*.

But remember that *t'* represents any arbitrary time later than *t*. Hence, if nothing already actual causally actualizes *O*'s going out of existence during $[t, t']$ for any $t' > t$, *O* will not go out of existence during $[t, t']$. Hence, if nothing already actual causally actualizes *O*'s going out of existence during $[t, t']$ for any $t' > t$, *O* will persist throughout $[t, t']$.

But absences are not actual things—they are precisely the *absence* or *non-existence* of actual things. *A fortiori*, an absence of sustenance or conservation from without is not an actual thing. Hence, an absence of sustenance from without cannot causally actualize *O*'s going out of existence at *t'*, precisely because only something *already actual* can causally actualize potentials (per CP), whereas absences are *not actual*.

Thus, if no positive reality⁴ causally destroys *O* during $[t, t']$ for any $t' > t$, *O* will persist throughout $[t, t']$. But this is just to say that *EIT is true*. According to EIT, temporal objects persist without external sustenance so long as they are not positively destroyed. We already saw that the mere absence of sustenance couldn't be an "already actual cause" of *O*'s cessation at any time *t'* later than *t*. Thus, so long as no positive reality comes along and positively destroys *O*, *O* will persist to *t'* even

⁴As we use it here, a positive reality is (roughly) anything that is not an absence or privation.

in the absence of sustenance from without. So, CP seems straightforwardly to entail EIT.⁵

But, crucially, EIT undercuts the Aristotelian proof's demand for external sustenance of O as a necessary condition of O's existing even for a moment. This demand for a sustaining efficient cause of act-potency composite objects is captured in the proof's seventh premise. According to premise (7), a changing substance S cannot exist for a moment but for the conserving power of some sustaining cause. But this clearly contravenes EIT, which—as we've seen—is entailed by CP. (Feser agrees that EIT, *if true*, would defeat the proof. For this reason, Feser (2017, p. 233) considers and rejects EIT.) Consequently, the Aristotelian proof is self-undermining: its causal principle (captured in premise (4)) undermines its own demand for a sustaining cause of changing substances (captured in premise (7)). This, then, is the problem for the Aristotelian proof. The proof's CP entails EIT, which in turn defeats the proof's seventh premise.

Let's now consider some objections.

4.4 Objection

Objection. Recall one of the central claims of our above argument: for O to go out of existence at some arbitrary t' (such that $t' > t$) is for a change to occur. In other words, for O to cease to exist at t' is for O's potential to cease to exist to become actual. But surely if change is the movement from potentiality to actuality, then ceasing to exist cannot be a change—non-existence is *not* a state of actuality. That is, a “potential to cease to exist” is impossible since ceasing to exist (or non-being) is not some actuality to which O's potency could point. Ceasing to exist *simpliciter* is not a change in the relevant respect, i.e., a potentiality becoming actual.

To be sure, a similar problem likely afflicts Feser's Aristotelian proof. Prior to O's existing, O cannot have any potentials, including a potential for existence.

⁵Epicurus offered a related argument in his letter to Herodotus, wherein he argued that the All—the sum total of all things—cannot have come from nothing and cannot go into nothing (Laetius 2018, p. 508). Interestingly, Epicurus appears to have thought that the All was a temporal concrete object that enjoyed existential inertia. He argued that in order for a change to be produced in some entity E, there needs to be something that stands outside of E and produces a change in E. But there is nothing that stands outside of the All and so nothing that could make the All cease to exist. In Aristotelian terms, a change can be produced in the All only if there is something outside the All that can actualize the All's potential for non-being. But there is nothing outside the All and so nothing to actualize the All's potential for non-being. As Epicurus writes, “the sum total of things... will remain so forever. For there is nothing into which it can change, since nothing exists besides the totality that could enter it and effect the change” (Laetius 2018, p. 508). While we're not here defending Epicurus's argument, its historical connection to EIT and CP is noteworthy.

Naturally, then, O's potential for existence cannot be caused to reduce from a state of potency to a state of actuality. But by the same token, posterior to O's existing, O cannot have a potentiality for non-existence. Naturally, then, O's potential for non-existence cannot be actualized. And so the argument from CP to EIT fails.

Reply. We have five replies. First, our argument's intended conclusion can be understood as *conditional*: if we grant the success of the Aristotelian proof, *then* EIT follows. So, suppose that Feser's Aristotelian proof is problematic with respect to the "actualization of something's potential for existence." And suppose that, by the same token, the inference to EIT is problematic with respect to the "actualization of something's potential for non-existence." No fret—we are concerned only with the aforementioned *conditional* claim. Hence, if the Aristotelian proof *itself* treats actualizations of potentials in this problematic way, it's entirely legitimate to use this treatment *against* the Aristotelian proof. And if we reject the inference to EIT on the basis of such mistaken treatment of potentials for non-existence, we should likewise reject Feser's Aristotelian proof on the same basis. So we can interpret this section's argument as a dilemma: either accept the Aristotelian proof and, consequently, EIT, or else *reject* the inference to EIT but only at the expense of rejecting the Aristotelian proof. And as we've seen, accepting EIT undermines the Aristotelian proof. Either way, then, the Aristotelian proof fails.⁶

But—and this is our second reply—there are ways to avoid the objection at hand. For instance, arguably we can run the argument in terms of *propositions*. We begin by noting that propositions, when true, correspond to some bit or portion of the world. That bit or portion of the world to which a proposition, when true, corresponds we'll call the proposition's *worldly correlate*. For example, the worldly correlate of <the cat is on the mat> is the cat's being on the mat. The worldly correlate of <Joe exists> is Joe (or Joe's existing). Now, plausibly, all the motivations for Feser's CP equally well support the following principle:

Propositional Causal Principle (PCP): Whenever a proposition P changes in truth value, there is an explanation for that change reporting either (i) that something already actual causally brings about P's worldly correlate (in the case of P's changing from false to true) or (ii) that something already actual causally removes P's worldly correlate (in the case of P's changing from true to false).

⁶One way to put the original objection that might not succumb to our first reply is as follows. When a thing goes out of existence, it's not that it has a potential to go out of existence at the next moment that is actualized. Instead, it's that it has a potential to exist at the next moment that is *not* actualized. And, plausibly, <x has a potential to exist at t that is *not* actualized> is not only *different* from but also *doesn't entail* <x has a potential to *not* exist at t that *is* actualized>. This rejoinder *might* avoid our first reply outlined in the main text, but it still succumbs to our next four replies, since our other replies grant that an object's cessation doesn't involve the actualization of that object's potential to cease to exist.

PCP is extremely similar to Feser's CP, since PCP says that changes in a proposition's truth value requires a causal explanation that either brings about or removes the proposition's worldly correlate.

Let P be the proposition $\langle O \text{ exists} \rangle$ and suppose P is true at t . By PCP, P can be false at any t' (where $t' > t$) only if something already actual causally removes P 's worldly correlate—i.e., only if something already actual causes P 's worldly correlate to cease to exist. But P 's worldly correlate is O (or O 's existing). So, P can only be false at any t' if something already actual causes O to cease to exist. In other words, P can only be false at any t' if something already actual destroys O . Hence, if nothing already actual destroys O between t and t' , P remains true from t to t' . But the proposition $\langle P \text{ remains true from } t \text{ to } t' \rangle$ entails that O persists from t to t' . So, if nothing already actual destroys O between t and t' , O persists from t to t' . And *that*, it seems, delivers EIT. (Bearing in mind, of course, the points about absences not being actual.)

Could Feser use a similar response to fend off the first objection's problem for the Aristotelian proof deriving from there being no such thing as *O's potential for existence*? It doesn't seem so.⁷ For in Feser's case, Feser is concerned with the actualization of O 's potential to exist *at a particular time*. But, plausibly, no change occurs at a single time. Change *takes* time (even if the former is more fundamental than and grounds the latter). At a particular time t , then, any proposition P is either true or false. There is no *change* of truth values at t exactly, and hence PCP is inapplicable here (since its antecedent isn't satisfied). One might think that Feser could focus on some time t^* *earlier than* t at which O exists and then find some proposition regarding O 's existence (at t) that changes truth value from t^* to t and thus requires (per PCP) worldly-correlate-causal-actualization.⁸ But there doesn't seem to be any good candidate for such a proposition. If the relevant proposition is the (presently) tensed proposition $\langle O \text{ exists} \rangle$, then this *doesn't* change truth value from t^* to t , since at both t^* and t (respectively) $\langle O \text{ exists} \rangle$ is true. If the relevant proposition is the tenseless proposition $\langle O \text{ exists at } t \rangle$, then this, too, doesn't change truth value from t^* to t , since tenseless facts about what happens at times are fixed (permanent, unchanging).

Now, Feser and other Thomists might respond that they would not concede PCP in the first place. If our "EIT-entailment criticism" of the Aristotelian proof is to succeed, then we must show that *Feser* would concede PCP, or (more precisely) that Feser would *have* to concede PCP given what he says on behalf of the Aristotelian proof. Otherwise, the claim that the Aristotelian proof itself entails EIT is mistaken.

⁷ Strictly speaking, our case in this section doesn't rest on an affirmative or negative answer to this question, as explained in our first reply. But it's valuable to consider nonetheless.

⁸ We are focused on some t^* at which O exists rather than at which O doesn't exist because proponents of EIT tend not to challenge that comings-into-being require external causes. We are concerned instead with O 's persistence *once* O exists, and hence the earlier-than bound we are considering should be one at which O does, indeed, exist.

This response, however, fails. For we have argued that *if* Feser accepts CP, then he should likewise accept PCP. The reason for this is that all the motivations for Feser's CP equally support PCP, in which case one cannot—in a principled manner—accept one while denying the other. Allow us to unpack this reasoning further. Feser (2017, p. 19) appeals to our experience of the world to support CP. But insofar as our experience supports CP, our experience equally well supports PCP: whenever a worldly correlate of a proposition comes to be or passes away, we witness a *cause* thereof.

Another argument Feser gives for CP runs:

It [i.e., CP] follows from *what change is*: the actualization of a potential...Now *potential* coldness can hardly do anything, precisely because it is merely potential. Only what is *actual* can do anything. In particular, the potential coldness of the coffee cannot make itself actual. Only something already actual can do that—the coolness in the surrounding air, or perhaps some ice cubes you might drop into the coffee. In general, any mere potential can only be actualized by something that is already actual. In that sense, any change requires a changer of some sort or other. (*Ibid*)

But this is clearly unconvincing. For all the argument shows, there is another way a potential can become actual: *nothing (causally) actualizes it*. The potential simply becomes actual, with no cause or explanation (or “changer,” to use Feser's phrase) whatsoever—neither potential *nor* actual. The proposal here is not that a potential can “do something” to make itself (or another potential) actual. As Feser points out, from an Aristotelian perspective, this seems absurd. But from this absurdity, it *doesn't follow* that <when a potential becomes actual, there must be something already actual that causes (or brings about or explains) the potential's becoming actual>. For the potential's becoming actual *may simply have no cause or explanation at all*.⁹ So, Feser's second argument doesn't even support CP and hence is compatible with our claim that whatever supports CP equally supports PCP.

Interestingly, though, even if Feser's second argument *did* support CP, the argument would equally support PCP. Here's how the argument would go, parodying Feser: PCP follows from *what change to a proposition's truth is* (assuming truth is correspondence with the world): a worldly correlate's coming to be or passing away. Now, a *potential*, in virtue of being a potential, can hardly do anything. Only what is *actual* can do anything. The potential coldness of some coffee cannot make a worldly correlate come to be or pass away, and nor can any other potential. Only something already actual can do that. In general, only what is already actual can make a worldly correlate come to be or pass away, and hence there must be something already actual that brings about or destroys a proposition's worldly correlate

⁹ For all the argument shows, that is. We aren't here claiming that a potential *can* become actual without any cause or explanation. We're simply pointing out that Feser's argument fails to establish CP, since the argument says absolutely nothing to rule out a potential's becoming actual *without any cause or changer whatsoever*. It's just false, then, to say—as Feser did—that CP's truth simply follows from what change is (potential's becoming actual).

whenever the proposition changes in truth value. And this is just to say that PCP is true.¹⁰

To be sure, this argument rather overtly fails. But the reason the argument fails is the same reason Feser's argument for CP fails: for all the argument shows, a worldly correlate may come to be or pass away because of *nothing at all*—neither an actuality *nor* a potentiality. Merely by ruling out a *potentiality* as a candidate factor bringing about (or removing) a worldly correlate, we aren't thereby allowed to infer that there must be an *actual* factor bringing about (or removing) the worldly correlate; there may simply be *no factor at all* responsible for bringing about or removing the worldly correlate. Similarly, merely by ruling out a *potentiality* as a candidate factor for actualizing a potential, we aren't thereby entitled to infer that there must be an *actual* factor that actualizes that potential; there may simply be *no factor at all* responsible. (Again, *for all Feser's argument here shows.*)

Feser offers another argument for CP elsewhere in his chapter. He writes:

[T]he principle of causality...is as well supported by experience as any claim could be. For in general, we do in fact find causes when we look for them, and when we don't find them (e.g., when investigating an unsolved murder) we have reason to think they are nevertheless there and would be found if only we had all the pertinent evidence and the time and resources for a more thorough investigation. Not only is this just what we would expect if the principle of causality is true, but it is not at all what we should expect if it were false. (2017, p. 42)

He then quotes Clarke (2001), who says that if CP were false, “then nothing at all would be required to produce anything at all: an elephant, or a hotel could appear suddenly on your front lawn out of nowhere,” and “it should be the easiest thing in the world for them to be popping up all the time” (p. 182). Similar points have been raised by Jonathan Edwards (1754, pp. 45–46), Arthur Prior (1962), William Lane Craig (1984, p. 372, 1993, p. 7; Carroll and Craig 2016, p. 75; Craig and Sinclair 2009, p. 186), and Andrew Loke (2017, 2022). For Edwards, Prior, Craig, and Loke, if entities could begin to exist without a cause, then nothing would prevent all sorts of entities from beginning to exist without cause and out of nothing. But our world is not one where bicycles, tables, planets, raging tigers, or stars pop into existence uncaused, and hence (conclude Edwards and co.) for any entity to begin to exist, there must be a cause of said beginning. Feser continues along similar lines:

The best explanation of why the world works in just the way it does is that there is something in the very nature of potentiality that requires actualization by something already actual—that is, the best explanation is that the principle of causality is true. The fact that we tend to find causes for things that come into being, and that things do not regularly pop into existence without any evident cause, would be miraculous if the principle were false. (2017, p. 42)

¹⁰ Just as Feser means a *causal* changer when he says, in the quoted passage above, “changer,” so too we mean *causally* brings about or destroys by “brings about or destroys.” There's symmetry here.

Never mind whether this line of reasoning works.¹¹ What matters for present purposes is that the line of reasoning equally supports PCP. Insofar as our universal experience supports CP, our universal experience attests to the truth of PCP, which is precisely what we would expect if the principle were true. Moreover, if the principle were false, then—continuing with the parody—nothing at all would be required to bring about or remove any worldly correlate at all: an elephant or a hotel could suddenly appear on your lawn from nothing, or your lawn itself or New York City might vanish into nothingness with no rhyme or reason. It should be the easiest thing in the world for worldly correlates to pop into and out of reality. What’s more, the best explanation for why we witness none of this is that there’s something in the very nature of the coming to be or passing away of worldly correlates that requires a cause by something already actual.

We’re left to conclude, then, that denying PCP is not open to Feser—unless, of course, he wants to jettison the very lines of support that (purportedly) deliver CP (and hence to jettison the Aristotelian proof itself).

Our third reply to the original objection is that we could use “possibility” instead of “potentiality” to run our argument. For even if there is no *potentiality* for O’s existence/non-existence in the sense of some disposition pointed towards an outcome that can be manifested or elicited when exposed to a relevant stimulus, we can nevertheless legitimately speak of the *possibility* that O ceases to exist. And, plausibly, the same motivations favoring CP equally favor the principle that when a possibility is not actual during $[t^*, t)$ but *is* actual at t (such that $t^* < t$), something already actual causally brings about the possibility’s actuality at t . This principle will equally facilitate the inference to EIT.

Once again, we can ask whether Feser can use a similar response to fend off the first objection’s problem for the Aristotelian proof deriving from there being no such thing as *O’s potential for existence*. And, once again, it seems not, for the same reason articulated in the previous case. For the principle in the last paragraph, like

¹¹ A note, however, is in order. The arguments of Edwards and company are missing an important premise—namely, that if an entity could begin to exist without a cause, then nothing else could explain that entity’s beginning. But the mere fact that entities can begin without causes is not sufficient for concluding that entities can begin without explanations or sufficient reasons for their existence. For starters, there are lots of non-causal explanations—e.g., explanations involving metaphysical grounding, functional realization, metaphysical necessity, structural constraints, and so on. But there are other, much-overlooked explanatory avenues available as well. Bertrand Russell (1912) and Ernst Mach (1900, 1911, 1959), for instance, endorsed metaphysical views consistent with determinism (and deterministic explanatory relations) but denied the existence of efficient causation altogether. Moreover, while McTaggart did not deny the existence of causation, McTaggart (1921, pp. 225 and 227, 1927, pp. 179–180) endorsed a radically revisionary conception of causation on which causal relations are not asymmetric. For more on McTaggart’s view here, see Sturch (2003). And for more on non-causal explanations appealing to determination, see footnote 52 of Chap. 6.

PCP, requires the *passage* of time, unlike Feser's demand for a sustaining actualizing cause at a *particular* time.¹²

Fourth, plausibly, we can infer EIT employing the notion of "Cambridge change," which (as we use it here) refers to a change in the predicates satisfied by *S* without any corresponding gain or loss of *S*'s properties (whether intrinsic or extrinsic). In particular, we can focus on the predicates "is such that *O* exists" and "is such that *O* doesn't exist." We can then consider changes to the extensions of such predicates. *O* ceases to exist just in case the potential for the first predicate's extension to be empty becomes actual (else: the potential for the second predicate's extension to be everything becomes actual). Since—per CP—every potential that is actualized requires something already actual to cause this actualization, and since the only plausible way to cause the relevant change to the predicate(s) is to cause *O* to cease to exist (i.e., to positively destroy *O*), we can infer the truth of EIT just as before.

Fifth, even granting that ceasing to exist isn't the actualization of a potential, a serious problem of entailing EIT still afflicts the Aristotelian proof. Just consider the following principle: *cessations require (already actual) causes*—that is, if object *O* ceases to exist, there must be a cause of *O*'s ceasing to exist. Here are two reasons (in the present dialectical context) favoring this principle.

First, if this principle is false—that is, if *O* could cease to exist without a cause—then CP seems to be false. For, plausibly, if *O* could cease to exist without a cause, then an *accidental property* could cease to exist without a cause. After all, if uncaused cessations of *objects* are genuinely possible, why would uncaused cessations of *accidental properties* be impossible? If an *entire object* (say) could cease to exist uncaused, why couldn't a mere *accidental property* of that object cease to exist uncaused? There seems to be no relevant difference between uncaused cessations of objects and uncaused cessations of *accidental properties* of objects that could explain why one is possible while the other isn't. Hence, if *O* could cease to exist without a cause, then *O* could lose an accidental property without a cause. But to

¹² In a vein similar to the earlier response to our second reply, one might respond to our third reply by saying that Feser would not concede the possibility-version of CP adumbrated in the main text. Thomists in general take potentiality to be a narrower concept than possibility. As an anonymous colleague of ours notes, a potentiality is thought by Thomists to inhere in some concrete thing, such as a substance or at least some aspect of a substance such as its essence. But possibility is a broader notion. So, we would have to show that what Feser says on behalf of the Aristotelian proof commits him to the possibility-version of CP. Our reply here is the same as earlier: all the motivations favoring CP equally favor the possibility-version of CP. Thus, if the possibility-version of CP is false, then these motivations don't suffice to establish the truth of the respective principles. Since Feser is committed to the claim that these motivations suffice to establish the truth of CP, it follows that Feser is committed to the possibility-version of CP. The other points we made earlier apply here as well. (Yet another reply is that granting that potentialities inhere in substances (or some aspect thereof) will only pose a problem for the Aristotelian proof, since features that inhere in substances are, under traditional Aristotelian metaphysical views, ontologically dependent on the *prior actuality* of their substances—in which case, there could only be a substance's "potential for existence" *after* the substance *already actually exists*. But in that case, no substance's actual existence is *resultant from* its potential for existence being brought to actuality, contra the Aristotelian proof.)

lose an accidental property without a cause is to undergo an uncaused change, which violates CP. Hence, if O could cease to exist uncaused, then CP is false.

Second, all the motivations for CP seem equally to support the aforementioned principle. Both principles appear to be equally supported by our experience and hence enjoy the same empirical or *a posteriori* support. CP and PCP also seem to enjoy the same *a priori* support. For instance, one purported *a priori* reason favoring CP is that if CP were false, then there could be utterly inexplicable changes, which is intuitively absurd. But, equally, if the aforementioned principle were false, then there could be utterly inexplicable cessations, which is intuitively absurd. Another purported *a priori* reason cited on behalf of CP is that if there genuinely could be uncaused changes, then it becomes inexplicable why we don't witness a kind of *chaos* around us—changes occurring all willy-nilly with no cause.¹³ But, equally, if there genuinely could be uncaused cessations, then it becomes inexplicable why we don't witness a kind of *chaos* around us—cessations occurring all willy-nilly with no cause. And so on down the list of *a priori* reasons. Accepting CP on the basis of such reasons while nevertheless rejecting the aforementioned principle would be intolerably arbitrary. Any type of support for the former is support for the latter, and hence any reason for accepting the former is also a reason for accepting the latter. (Note that we take no stance here on whether such reasons are *good*.)

Thus, if one wants to affirm CP (as the Aristotelian proof requires), it seems one must likewise accept the principle that if object O ceases to exist, there must be a cause of O's ceasing to exist. But this is all we need to get the argument for EIT up and running. Contraposing the principle gives us <if nothing causes O to cease to exist (at t), then O doesn't cease to exist (at t)>. Suppose, then, that O exists during $[t^*, t)$, $t^* < t$. By the contraposed principle, if nothing causes O to cease to exist at t, O won't cease to exist at t, and hence O will continue to exist to t (for any arbitrary $t > t^*$). And since there are no absences, it follows that there are no absences that are also causes—in which case, the absence of sustenance or conservation from without is not a candidate cause of O's ceasing to exist at t.¹⁴ The only candidates are positive realities that causally induce O's cessation at t—i.e., that positively destroy O at t. And this, we argued, delivers EIT.

For these five reasons, we conclude that our problem for the Aristotelian proof survives the objection at hand.

Objection. While an absence cannot serve as an already actual causal actualizer, perhaps the *event* of God's withdrawing his sustaining activity can serve this role.

¹³ Once again, we aren't endorsing this justification. Recall from an earlier footnote that the justification seems to rest on a mistaken assumption—namely, that appealing to a *cause* is the only way to *explain* a change. However, as we've seen, there are lots of non-causal explanations, and it's not clear why such explanations couldn't be brought to bear in explaining (certain kinds of) change. Our point here is simply that (i) our *interlocutors* maintain that if CP were false, then all sorts of entities would (or might) inexplicably begin to exist, and that (ii) if that claim supports CP, then similar considerations support PCP.

¹⁴ Alternatively, we could reason as follows: (i) only actual things can serve as causes, but (ii) absences are not actual things.

Reply. We have at least three replies. First, this requires that there *actually are* such things as events—a controversial assumption that significantly weakens the Aristotelian proof. Yes, there are objects, and it's plausible that such objects have, gain, and lose various properties. But are there such things as *events* corresponding to such havings, gains, and losses, *over and above* the objects and properties? It's not obvious.¹⁵ (Note, moreover, that the claim that there are such things as events is not justified anywhere in Feser 2017.) Second, the Aristotelian proof and Feser's replies to objections are cast within an underlying Aristotelian metaphysical framework. But the objection at hand is rather *un-Aristotelian*. For Aristotelians, it is *substances* or *concrete objects*, not events, that are causes.

Third, it's not clear what this event consists in. Is the event *timeless*, given that (under classical theism) all of God's causal activities are timeless? Could there even be a timeless *event*, i.e., a timeless happening or occurrence? Classical theists have imagined that God exists in a timeless moment, and perhaps a timeless moment can be thought of as a timeless happening or occurrence. We find this implausible, especially given that one of the most prominent accounts of *events* identifies them with *changes*. But setting this aside, there's a deeper worry. For the event in question is *distinct* from God. (God, after all, is not identical to a *withdrawal*!) But under classical theism, anything distinct from God is created and sustained by God (Rogers (1996, p. 167), Bergmann and Brower (2006, p. 361), Grant (2019, ch. 1), and Kerr (2019, pp. 15 and 44)). But then God must *create* the event of God's withdrawing God's sustaining activity of O. We find this implausible on its face, but there's a much more serious problem here. Plausibly, whatever type of event that God creates and sustains is such that God is free to withdraw God's sustaining activity of that type of event. So, God could withdraw God's sustaining activity from the event type T of *God's withdrawing his sustaining activity*. But given the objection under consideration, God's withdrawals correspond to events, and hence if God could withdraw God's sustaining activity T, then there would be an event E of type T corresponding to the removal of events of type T. But this is surely absurd. For then there would exist an event E of precisely the type that E was supposed to have been removing altogether. It's like divine whack-a-mole—for God to remove all the extant events of type T, he can accomplish this removal only by *creating* a new event of type T. He would thereby fail to remove from reality *all* events of type T. Hence, the objection at hand plausibly lands in absurdity.

¹⁵It's worth noting that many philosophers deny that events exist. Consider, for instance, Terence Horgan: "it is a mistake to posit events at all", for "despite the initial appearances, there is no real theoretical need to posit events. So, since their elimination yields an important simplification of ontology, we should banish them from existence" (1978, p. 28). Similarly, Peter van Inwagen: "There are, I would say, no events. That is to say, all statements that appear to involve quantification over events can be paraphrased as statements that involve quantification over objects, properties, and times—and the paraphrase leaves nothing out" (2009, p. 14). And William Lane Craig: events are "the sorts of thing that many metaphysicians plausibly deny exist", and "they are not, properly speaking, existents" (2011, p. 220).

We conclude that the objection at hand—while valuable and suggestive—fails to circumvent our argument.

Objection. Suppose the proponent of the Aristotelian proof grants that when O ceases to exist, something already actual must cause this cessation. The issue, then, is what the proponent is allowed to count as “something already actual causing a thing to cease.” Importantly, the proponent can reply as follows: “I have to believe that whenever something ceases to exist, it’s caused to do so. That much is true. But this doesn’t require me to believe in existential inertia, which—more than just requiring a *cause* for things to stop existing—requires a *positive act of destruction*. I don’t believe *that*. I believe that *just removing the causally necessary conditions for a thing’s existence suffices to cause its cessation*. That’s what happens when God (the unactualized actualizer) removes God’s sustaining hand from things: something actual is removing a necessary condition for the existence of these things. What more could be needed to make a thing stop existing than to deprive it of a necessary condition for its existence?”

Reply. We agree that *if* God’s act of sustenance is a causally necessary condition for an object’s persistence, then—in principle—all we need to do to explain why an object ceases to exist is to cite the removal or withdrawal of this causally necessary condition. But this only serves to *reinforce* our point. For this “removal” or “withdrawal” is the *absence* of a sustaining causal act (provided the sustaining act was operative beforehand). But absences are *not* already actual things, and hence—by this objection’s own lights—the actualization of a thing’s potential to cease to exist simply does not require an already actual cause. And in that case, CP is false. Far from *salvaging* the Aristotelian proof from our criticism, then, the objection only reinforces the criticism.

To be sure, we agree that the object’s cessation—upon the removal of a causally necessary condition for the object’s existence (assuming there is such a condition)—would be *explained*. In particular, the object’s cessation would be explained by the removal of such a causally necessary condition. But the point is that there is nothing serving as an *already actual causal actualizer* of the cessation. And yet this is precisely what is needed under CP.

Moreover, once we allow actualizations of potentials to be explained *not* by an already actual causal actualizer but *instead* by the *absence* of a causally necessary condition for the actualization of the complement potential,¹⁶ the Aristotelian proof is rendered uniquely susceptible to one form of the existential inertia objection. For surely the actualization of an object’s potential to exist at a subsequent moment could then be explained by the absence of a causally necessary condition for the actualization of the complement potential—that is, surely the actualization of an

¹⁶If there’s a potential for F, the *complement* potential is a potential for $\sim F$. The objection under consideration allows for the following: (i) S has a potential to *not* exist at a subsequent moment, and (ii) the explanation for the actualization of this potential is the *absence* of a causally necessary condition for the *complement* potential—that is, the potential to *exist* at the subsequent moment.

object's potential to exist at a subsequent moment could then be explained by the absence of a causally necessary condition for the actualization of the object's potential to *not* exist at the subsequent moment. And once we add that a causally necessary condition for the actualization of this potential is a sufficiently destructive factor operative, we get an existential-inertia-friendly explanation of the actualization of an object's potential to exist at a subsequent moment. The explanandum is simply *entailed* by the explanans, without any further explanatory facts needed. Where *S* is something that exists at the present moment, we have the following explanatory derivation:

Derivation: (i) If *S*'s potential to *not* exist at the next moment is actualized, then—since a sufficiently destructive factor is a causally necessary condition for this actualization—there is a positively destructive factor operative; (ii) but no such positively destructive factor is operative; hence, (iii) *S*'s potential to not exist at the subsequent moment is *not* actualized; (iv) but if *S* *failed* to exist at the subsequent moment, then *S*'s potential to not exist at the next moment *is* actualized; hence, (v) *S* does not fail to exist at the next moment; hence, (vi) *S* exists at the next moment.

To be sure, the defender of the Aristotelian proof might reject the claim that a destructive factor is a causally necessary condition for the actualization of *S*'s potential to not exist at the next moment.¹⁷ The point for present purposes, however, isn't to defend that claim. Instead, the point is as follows. The objection at hand grants that the actualization of a potential can be explained *not* by an already actual cause but instead by the absence of a causally necessary condition for the actualization of the complement potential. Call this proposition *P*. Once we grant *P*, though, we can provide an illuminating, existential-inertia-friendly explanation of persistence. We need only add that a destructive factor is a causally necessary condition for the actualization of *S*'s potential to not exist at the next moment. Whether or not this claim is true, *Derivation* clearly shows that—once conjoined with *P*—the claim *would* adequately explain persistence *were* the claim true. And this much is a victory for the existential inertialist: no more can defenders of classical theistic proofs claim that under EIT, there is no explanation of things' persistence.

What's more, this result seems to *undermine* the Aristotelian proof. For the Aristotelian proof requires that the only way to adequately explain the actualization of something's potential to exist at a given moment is by citing an extrinsic sustaining efficient cause. But this is false if the above result holds. There is *another* adequate explanation available in the combination of *Derivation* and *P* that makes no reference to sustaining causes.

Thus, the objection at hand not only reinforces our original argument, but it also equips us with yet another defeater for the Aristotelian proof.

Objection. The argument here is actually *compatible* with temporal concrete objects requiring God's continual sustenance in order to persist. The proponent of

¹⁷ Though, it looks for all the world like it *is* true given our experience.

divine sustenance need only posit the existence of an annihilating influence (or tendency, or principle, or factor, or whatever) always at work on objects—an influence that God must always counteract, and that *only* God could counteract. When God ceases to counteract this influence, the unimpeded annihilating influence then works on objects to destroy them. *Absent* the annihilating influence, things would indeed just go on existing even without God’s help—they’d inertially persist. It’s just that such an influence *is* present, and so God’s continual sustenance *is* needed.

Reply. We have five replies. First, we must confess that the objection strikes us as deeply ad hoc. Its sole dialectical purpose and motivation, it seems, is to salvage the divine sustenance account.

Second, the postulation of such an influence (or tendency or etc.) arguably shifts the burden onto the one positing such a hitherto uncountenanced feature to *positively justify* said postulation. Now, one might object that—to the extent that we want to employ CP as an argument *for* EIT—we need to *positively rule out* the existence of such a feature (or phenomenon or tendency or whatever). For if there *were* such a feature, any such argument would not deliver things’ continuance absent divine sustenance. Hence, *ruling out* such a feature is required if we want to deliver things’ continuance absent divine sustenance. If this is right, then our second response illicitly shifts the burden of proof. We have two responses. First, given that (i) positing such a feature is *prima facie* deeply implausible and ad hoc, and given also that (ii) the postulation of such a feature introduces needless complexity with no explanatory payoff, we think that, plausibly, (iii) the onus of justification lies with the one *positing* such a feature (and so not with *us* to positively rule out). Second, we could easily construe our chapter’s criticism as an *undercutting* defeater—in which case, we need only point out that (i) CP’s entailing EIT would defeat the Aristotelian proof, (ii) CP *avoids* entailing EIT only by positing such a tendency, and yet (iii) we’ve been given no reason to posit such a tendency.

Third, this objection arguably does more harm than good to the project of classical theistic proofs. For the objection seems to grant that there is a workable account or explanation of inertial persistence *so long as* we stipulate that there is no such annihilating influence at work. As with the previous objection, this seems to equip the inertialist with a rather powerful response to divine-conservation-based classical theistic proofs: no more can proponents of such proofs claim that under EIT, there is no explanation of things’ persistence.

Fourth, at least in Feser’s case, some of the central arguments against a tendency to persist are equally arguments against a tendency to expire (and hence equally arguments against the objection at hand). One of Feser’s central arguments—deriving from the Principle of Proportionate Causality (PPC), according to which causes pre-contain (formally, virtually, or eminently) whatever is in their effects—runs as follows.¹⁸ The only two principles of material substances are form and matter. But by itself, matter is pure potentiality and so doesn’t actually exist, in which case

¹⁸ We’ll elaborate upon (and evaluate) this argument in depth in Sect. 7.3.4. For present purposes, a brief sketch will suffice.

matter alone cannot impart any tendency to persist. And form alone is a mere abstraction and so doesn't actually exist, in which case form alone cannot impart any tendency to persist. From this and the PPC, it (purportedly) follows that no material substance has a tendency to persist.

But this argument can equally be run against the annihilating feature posited by the objection. The only two principles of material substances are form and matter. But matter alone is pure potentiality and so doesn't actually exist, in which case matter alone cannot impart any tendency to annihilate (or any other self-annihilating feature). And form alone is a mere abstraction and so doesn't actually exist, in which case form alone cannot impart any tendency to annihilate (or any other self-annihilating feature). From this and the PPC, it (purportedly) follows that no material substance has (i) a tendency to annihilate or (ii) any other self-annihilating feature.¹⁹ The conclusion of this parody argument, if true, implies that nothing internal to a material substance S could give S an annihilating tendency or could serve as an annihilating influence. In that case, only things entirely external to S could do that.

But the same parody argument—if successful—will apply *mutatis mutandis* to those external things and their ability to influence S. For under Feser's view, they are *composites*, and their metaphysical parts (e.g., form and matter)—considered by themselves and apart from the other metaphysical parts—are not actually existent items in their own right, in which case they cannot—of themselves—impart any ability to annihilate S to their wholes. Hence, Feser's argument, if successful, would show that the only candidate annihilating influence is *God*.

But then the objection under consideration becomes absurd. For then the objection posits that (i) God is always actively working to annihilate objects, and yet (ii) God must always counteract God's own annihilating activity to conserve things in being. This is surely absurd. First, what state of affairs could possibly count as one in which God works to annihilate things while simultaneously counteracting God's own annihilating work? Would this not collapse merely into God's sustaining things in existence *simpliciter*, without any annihilating activity at all? Second, the conjunction of (i) and (ii) seems to compromise God's perfect rationality. For if (i) and (ii) are true, then God is working to annihilate things and simultaneously acting *against* that work. Not only does this seem utterly purposeless, but it also seems to entail a conflict in God's intentions. If God intends to sustain S in existence at t, why would God also simultaneously act to destroy or annihilate S at t? Even if God knows that God will succeed in overcoming God's destructive work, one of God's intentions is still contrary to and frustrated by another of God's stronger intentions. Finally, the proposal in question is intuitively absurd. It's inelegant, ad hoc, complex, and makes existential inertia look a far more attractive alternative.

¹⁹ We don't think this parody argument proves its conclusion, for the same reasons we don't think the original argument does. (Again, see Sect. 7.3.4.) But that's neither here nor there for present purposes.

Finally—and this is our fifth reply to the objection—if our first four replies fail, we’re willing to concede that our argument from CP to EIT requires, as a background assumption, that there is no annihilating influence or tendency of the sort mentioned in the objection. In itself, this is an extremely significant result: EIT’s truth follows from CP in conjunction with (what is by our lights) the innocuous and eminently plausible claim that the annihilating influence or tendency mentioned in the objection doesn’t exist.

Objection. Perhaps the notion of *privative causality* can help Feser here. Privative causality refers to the causal efficacy of *privations* or *absences*. After considering several purported cases of such causality, John Haldane explains the notion as follows:

Want of a battery, of gas, of a piece of wire, of water, of sound, of sight, of air and of gravity here serve (partly) to explain occurrences or non-occurrences. The ‘because’ in each case is of the same sort used to introduce a causal factor (partly) productive of an outcome. (Haldane 2007, p. 180)

Under such a view, absences *can* be causally efficacious. They are, however, causally efficacious only insofar as they amount to privations, gaps, lacks, absences, failures, or deficiencies in actually existing things or systems. Thus, “privations are not bare nothings, they are absences, deficiencies, gaps, etc., *in actualities*. No wall, no window; no fabric, no hole; no battery-operated alarm, no missing battery, and so on” (*ibid.*, p. 184). Nevertheless, it is the *privation* which is among the causes in a case of privative causality.

Given all this, Feser has a clear way out of our chapter’s argument: the withdrawal of God’s sustaining action would amount to a case of privative causality. Just as a lack of oxygen to the brain *causes* death, so too does the lack of God’s sustaining action *cause* something to cease to exist.

Reply. We have five replies. First, the objection entirely overlooks that the CP doesn’t merely say that a potential’s becoming actual requires a *cause*; instead, CP says that a potential’s becoming actual requires an *already actual* cause. Per the CP, whatever actualizes the potential must be *actual*. But—as Haldane explicitly points out—*privations or absences are not actual*. In reference to privative causality, Haldane concludes that “not every cause is actual” (2007, p. 186). For Feser to appeal to privative causality at this juncture would therefore amount to a flat denial of CP. For then *not* every actualization of potential is caused by something actual—some are caused by privations or absences, and those aren’t actual. And as a general rule of thumb, we do not advise defending Feser’s CP by way of denying Feser’s CP.

Second, even ignoring this first point, adducing privative causality saddles the defender of CP who wishes to avoid EIT with deeply controversial (and by our lights implausible) commitments. This alone raises the intellectual price tag of adopting CP while rejecting EIT. By our lights, there are no absences, and *a fortiori* there are no causally efficacious absences. We find the view that there are no absences deeply intuitive. Moreover, we think committing to absences implicates one in several sticky problems concerning their individuation and identity conditions.

Consider that neither of us have blond hair. Are there such things as “the absences of our blond hair”? If so, are they the *same* absence, or do we each enjoy our own absences? Do we also have absences of green, purple, blue, fuchsia, and scarlet hair? What about the absences of various dragons in my room? Are there such absences? How many? One corresponding to each dragon that might exist in my room? Presumably, then, there are infinitely many absences in my room! (Or is there instead merely a “general absence of dragons” in my room?) And *where* are these absences? Are they spatially *in* my room? Maybe three inches left of the lamp? Or are they *non-spatial*? Now suppose there aren’t the aforementioned absences. Why not? Perhaps because not having blonde hair (or not having dragons in my room) isn’t a *deficiency*, i.e., not having blonde hair is not a property that we ought to have but lack. But now we’re saddled with the task of spelling out and explaining this normativity. And we’re also faced with the problem that, plausibly, divine sustenance of some possible thing *x* isn’t something that *x ought* to have. (Unicorns *ought* to be sustained by God?) Other problems abound, too. By the privative causality proponent’s lights, we can cite the absence of bullets in the assassin’s gun to causally explain the assassin’s failure to murder their victim. But surely we shouldn’t think that the assassin’s gun *ought* to be loaded with such bullets! As we hope this paragraph illustrates, the puzzles afflicting commitment to absences are multifarious and potentially quite serious, especially in the present dialectical context.

At this juncture, Haldane’s (2007) case for privative causality is worth addressing, as the case nicely represents more general argumentative trends issuing from many friends of privative causality. Haldane asks us to focus on the abovementioned (purported) cases of privative causality and suggests an alternative view that doesn’t involve countenancing privations or absences in our ontology: “in the putative cases of privative causality given above, it is possible to reformulate statements of causal explanation and of causal identification in ways that preserve information while eliminating reference to privations” (*ibid*, p. 181). He focuses in particular on one such purported case: the smoke alarm failed to go off because there was no battery in it. For Haldane, there are two potential actualist-friendly accounts of this case:

1. The smoke alarm failed to go off because not all of the causes necessary for its operation were present; or
2. The smoke alarm failed to go off because, although smoke and other factors normally sufficient for its operation were present, the detector mechanism and emitter depend for their operation upon an electrical current normally provided by a battery and in the absence of this they were inactive. (*Ibid*, pp. 181–182)

Haldane notes that (2) is precisely the sort of thing in want of elimination: a privative causal explanation. What, though, about (1)? For Haldane, (1)

is true, but it fails to identify any definite cause of inoperation, whereas the original statement specified one. Also it is equivalent to saying that one or more causal factors were absent, but that is only an explanation of the phenomenon if the non-operation was due to, or because of their absence. That, however, is a privative causal explanation either entailing or suggesting privative causality. (*Ibid*, p. 182)

We don't find this response convincing. Let's begin by redressing (1)'s failure to identify a *definitive* factor responsible for non-operation. This is an easy fix—simply modify (1) to (3):

1. The smoke alarm failed to go off because (i) the presence of a battery therein is a causally necessary condition for its operation, and yet (ii) there was no such battery.

Here, a definite explanation has been adduced—there's no longer any nebulous gesture towards “not all” the causally necessary conditions being present. And while (by the actualist's lights) no *cause* of the alarm's failure to go off has been identified, that's no barrier to (3) adequately *explaining* the alarm's failure. Not all explanations are *causal* explanations, after all.²⁰ The actualist can *agree*, then, that the non-operation was in some sense *due* to the absence of the battery. But this can be captured entirely with the non-causal explanation found in (3). And (3), of course, doesn't in the slightest commit to absences. *Pace* Haldane, then, none of this entails or suggests privative causality.

But let's not lose our tracks. We're leveling five replies to the original objection. We've already leveled two, so let's now consider the third: the problem of locating the relevant privation. As Haldane points out, privations are always privations *in* some actuality—they presuppose some more fundamental actuality in which they inhere. They live, move, and have their non-being *in another*. But in the case of God's withdrawal or removal of conservation, what is the substance in which the relevant privation inheres? The substance can't be God, for the classical theistic God has no privations (Feser 2017, pp. 29–30). But nor can the substance be the creature from whom God has withdrawn or removed God's conservation, for such a creature is precisely *nothing* absent God's conservation. In other words, the privation or absence of conservation cannot inhere in the actuality of the creature, for the privation or absence of conservation entails the *non*-actuality of the creature. But in that case, there's simply nothing in which the relevant privation could inhere.²¹

Our fourth response essentially re-iterates one of our responses to a previous objection. Specifically, once we allow actualizations of potentials to be causally explained *not* by an already actual causal actualizer but *instead* by the *privation* or *absence* of a causally necessary condition for the actualization of the complement potential, the Aristotelian proof is rendered uniquely susceptible to one form of the existential inertia objection. For surely the actualization of a thing's potential to

²⁰We will return to this point in later chapters, but we think it's obvious upon reflection on our explanatory practices. Mathematicians, for instance, often explain why less fundamental theorems hold in terms of more fundamental axioms and rules of inference. And yet such mathematical principles and truths don't *causally produce* their explananda. Metaethicists explain why (say) torturing a child for fun is wrong in terms of (say) the badness of the child's suffering (in conjunction, perhaps, with the nature of the act, the intention, the consequences, and so on). And yet the badness of suffering doesn't *causally produce* the wrongness of actions. And so on.

²¹One might suggest that it inheres in another creature. But, first, this is facially implausible. It is simply *false* that the privation or absence of God's conservation of (say) Abraham Lincoln inheres in (say) a banana, or Donald Trump, or the Eiffel Tower, or any other creature. Second, and more importantly, presumably God could have created (and then removed or withdrawn God's conservation of) a *single* creature. But in that case, the only two options for that privation's locus are God or that very creature. And—as we've seen—neither option works.

exist at a subsequent moment could then be causally explained by the absence of a causally necessary condition for the actualization of the complement potential—that is, surely the actualization of a thing’s potential to exist at a subsequent moment could then be explained by the absence of a causally necessary condition for the actualization of the thing’s potential to *not* exist at the subsequent moment. Once we add that a causally necessary condition for the actualization of this potential is a sufficiently positively destructive factor operative, we get an existential-inertia-friendly *causal* explanation of the actualization of a thing’s potential to exist at a subsequent moment. And all this *without* some positive external reality sustaining or conserving that thing in being! The ensuing dialectic plays out much as before.

Finally—and this is our fifth reply to the objection—if our first four replies fail, we’re willing to concede that our argument from CP to EIT requires, as a background assumption, that there are no privative causes. In itself, this is an extremely significant result: EIT’s truth follows from CP in conjunction with (what is by our lights) the eminently plausible claim that there are no causally efficacious absences.

4.5 Conclusion

We’ve argued that the Aristotelian proof faces a significant challenge in addition to those surveyed in the previous chapter. In particular, the Aristotelian proof arguably *entails* EIT and thereby defeats itself. We also think our case in this chapter survives each of the objections surveyed. In the following chapters, we explore existential inertia in far more detail. Buckle up.

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Chapter 5

Existential Inertia: Thesis and Taxonomy



5.1 Introduction

As the Aristotelian proof illustrates, a major class of arguments for the existence of the classical theistic God are based on explaining the moment-by-moment existence of the objects of our experience. In other words, they focus—at least in large part—on the question of why objects (of a given type) *persist* or continue in existence. We characterized these kinds of arguments—what we call *persistence arguments*—in Sect. 1.3.

Examples of persistence arguments abound. Four out of five of Feser's (2017) arguments for classical theism, for instance, hinge on the demand for a sustaining cause of each of the following (respectively): changing (or changeable) beings, composite beings, beings in which essence and existence are distinct, and contingent beings. Feser (2009, 2011) also argues that the first three of Aquinas's Five Ways concern the conservation of (certain kinds of) entities in existence, and Aquinas's Second Way is well-nigh universally recognized as concerned with such (cf. Wippel 2000, pp. 459–462).

Here's a quick reminder about the structure of persistence arguments. Objects of type T (temporal, changeable, composite, contingent, etc. objects) require efficient

causal sustenance or conservation at any moment at which they exist.¹ The chain of sustaining causes explaining the moment-by-moment existence of a given T-type object cannot descend infinitely or form a loop. Hence, such chains must terminate with an unsustained sustainer. Since all T-type objects require an efficient sustaining cause, the *unsustained* sustainer must not be a T-type object. Friends of persistence arguments go on to argue that this non-T object is the God of classical theism.

An influential response to such arguments is that the existence of temporal (changing, composite, etc.) objects behaves *inertially*—that is, temporal objects (or some subset thereof) enjoy *existential inertia* insofar as they simply continue to exist in the absence of both destruction and external sustenance. Given existential inertia's importance for traditional arguments for God's existence, it's surprising that existential inertia has received very little scholarly attention in contemporary philosophy of religion and metaphysics. The term originated in Adler (1980), but no systematic treatment of existential inertia was given until Beaudoin (2007), who defended the inertial thesis. For criticism of the thesis, see Feser (2011, 2021), McNabb and DeVito (2020), Hsiao and Sanders (2022), and Kerr (Forthcoming-a, -b). For an overview and critical appraisal of both sides of the discussion, see Audi (2019). For recent defenses, see Benocci (2018), Oppy (2021), Schmid (2021a, b, c), and Ingthorsson (2021, ch. 6). Implicit defenses of existential inertia can also be found in the likes of Rundle (2004, pp. 85–94) and Mackie (1974, p. 156), while implicit criticism can be found in Kvanvig and McCann (1988). Brief comments on existential inertia are also found in Pruss and Rasmussen (2018, pp. 76–78). To be sure, many historical thinkers, such as Spinoza and Aquinas, have grappled with questions pertaining to conservation and explanations of persistence. But as Audi points out, “there is almost no discussion of this issue in contemporary metaphysics” (2019, p. 1). Much less has there been discussion of how existential inertia might relate to contemporary philosophy of physics. The aforementioned flurry of publications on the topic—as well as our present contribution—promise to redress this neglect.

Our present chapter is significant in at least three ways. First, we provide much-needed clarity and precision in debates concerning existential inertia by articulating a series of taxonomic questions that any inertial thesis—as well as any proponent or detractor of existential inertia—must answer. Second, too few philosophers have addressed the nature of persistence in relativistic spacetimes; thus, it is unsurprising

¹In the context of existential inertia, we focus only on sustaining causes of *temporal* things. Very roughly, then, *x* is a sustaining (efficient) cause of *y*'s existence provided that (i) *y*'s existence causally depends on *x*'s causal activity at any moment at which *y* exists, and (ii) *x*'s causing *y* is not a *transtemporal* relation (i.e., a relation obtaining between things or events located at different times). We emphasize that sustenance/conservation is fundamentally a concurrent, explanatory, ontological dependence relation. (Instead of a more “linear” dependence of one thing on something that happened in the past, it refers to a kind of “hierarchical” dependence of something less fundamental on something more fundamental.) Thus, conservation can refer to *any* such dependence relation, such as grounding, realization, or sustaining causation. Finally, note that we use “sustenance” and “conservation” (and their cognates) synonymously and interchangeably throughout.

that no inertial thesis has been offered that grapples with the ways in which relativity modifies traditional accounts of persistence.² We forge new ground by providing the first articulations of perdurantist and relativistic existential inertia theses. Finally, we explore the intersection of contemporary philosophy of physics and persistence arguments for God's existence—an intersection on which, in our view, not enough ink has been spilled.

We begin in Sect. 5.2 by surveying and comparing philosophers' different articulations of the existential inertia thesis (EIT). As we'll see, there is dire need for greater clarity and precision in the existential inertia literature, and our task in Sect. 5.3 is to provide such clarity. In particular, we raise and analyze a series of questions aiming to taxonomize existential inertia theses. This includes questions about scope (Sect. 5.3.1), persistence and relativity theory (Sect. 5.3.2), modal register (Sect. 5.3.3), dependence and destruction (Sect. 5.3.4), and metaphysical accounts of inertial persistence (Sect. 5.3.5). We then articulate our EIT using our answers to the previous taxonomic questions (Sect. 5.4) and, using our thesis, raise one final taxonomic question concerning temporal ontology (Sect. 5.4.1). In order to provide a foundation and jumping-off point for further research on existential inertia, we list each taxonomic question in the concluding section (Sect. 5.5).

5.2 Existential Inertia

As Beaudoin characterizes existential inertia, “[a]n object enjoying existential inertia will continue to exist, without being sustained in existence by any external agent, until something else comes along and destroys it” (2007, p. 86). Along similar lines, Adler views the thesis as affirming that “[c]ontingent individuals continue in existence, once given existence, until counteracting causes intervene to deprive them of their existence” (1980, p. 125). Feser follows suit: “the world of contingent things, once it exists, will tend to continue in existence on its own at least until something positively acts to destroy it” (2011, p. 239).

Audi's characterization differs from the above: “Whatever exists is poised to continue to exist if undisturbed and inactive” (2019, p. 2), where *x*'s being poised to *A* implies that “there are circumstances *C* such that if *x* is in *C*, *x* will *A*” (2019, p. 4). Audi continues: “By ‘undisturbed’, I mean not being causally influenced by anything else. By ‘inactive’, I mean not undergoing internal causal processes” (2019, p. 4). Moreover, for Audi, the domain over which the thesis quantifies is

²Accounts of persistence may also need to be modified in light of how quantum mechanics, or quantum field theory, changes our conception of material composition (Healey 2013; Calosi and Tarozi 2014; Calosi et al. 2011) or in light of how the new spacetime structures introduced by quantum gravity theories change our conception of time and persistence. For present purposes, we'll set aside quantum mechanical insights into material composition and the new spacetime structures introduced by quantum gravity theories in order to focus on how persistence is modified by relativistic spacetimes.

unrestricted: natural or supernatural, structurally simple or complex, fundamental or non-fundamental, necessary or contingent.

Schmid's characterization differs further still in terms of domain of quantification and modal register:

Existential Inertia Thesis (EIT): Necessarily, concrete objects (i) persist in existence (once in existence) without requiring a continuously concurrent sustaining cause of their existence and (ii) cease to exist only if caused to do so. (Schmid 2021a, p. 203)

Given the wide variety of (incompatible) characterizations of EIT in the literature, much conceptual clarity is needed in the debate. In particular, both defenders and detractors of EIT need clarity on each of the following: (i) the thesis's domain of quantification, (ii) the thesis's modal register, (iii) the kind of ontological dependence the thesis denies of inertially persistent entities, (iv) the factors that do or can destroy inertially persistent entities, (v) that in virtue of which inertial persistence obtains (if it obtains at all), and (vi) the thesis's relation to temporal ontology. As we've explained, very little attention has been paid to disentangling and precisifying these elements of EIT. Our goal is to put this neglect to an end.

5.3 Clarifying the Thesis

Our principal purpose in this section is to uncover a series of questions to clarify and taxonomize inertial theses. While we will take sides on some of the questions, our main focus is the questions *themselves*, since they bring clarity and precision to the existential inertia debate. The taxonomic questions also lay the foundation for our characterization of existential inertia in Sect. 5.4.

5.3.1 Scope

What kinds of ontological items inertially persist? Audi's inertial thesis, as we've seen, is completely unrestricted in scope: *whatever* exists is poised to continue to exist if undisturbed and inactive. This seems implausible, however. Suppose abstracta (non-spatiotemporal, acausal entities like universals, propositions, mathematical objects, etc.) exist. Because abstracta don't enter into causal relations, they are undisturbed and inactive. Audi's unrestricted thesis therefore entails that such abstract objects are poised to continue or persist in existence. But this is implausible—abstract objects, *qua* non-temporal, cannot persist or continue in existence. The same holds for non-temporal concreta (if such exist).³

³In fairness to Audi, "continue to exist" may be ambiguous. In one sense, *x* continues to exist if *x* persists through time. In another sense, *x* continues to exist if *x* simply doesn't cease to exist. If Audi is employing the former sense, then abstracta (if such exist) pose a challenge to Audi's unrestricted thesis. But if Audi is employing the latter sense, they pose no such challenge, since abstracta *do* continue to exist in the latter sense. Thanks to Paul Audi for inviting this clarification.

We therefore have the first two scope questions that any inertial thesis must answer: Does the thesis quantify over temporal or non-temporal things (or both)? Does the thesis quantify over concreta or abstracta (or both)? For reasons just articulated, we think the thesis should quantify only over temporal concreta.

Assuming we quantify over temporal concreta, a third scope question arises: what *kind* of temporal concreta—objects, events, concrete states of affairs, etc.—inertially persist? Beaudoin quantifies both over concrete objects and “the world,” while both Adler and Schmid quantify solely over concrete objects (i.e., individuals like trees, particles, etc.). If events, concrete states of affairs, etc. exist in addition to concrete objects, then Audi quantifies over *them* as well.

By our lights, the standard differences between concrete objects and events or states of affairs renders this latter commitment of Audi’s thesis implausible. At least in debates concerning inertial persistence, objects are standardly pictured as enduring continuants that persist by being wholly present at each time at which they exist. But events or states of affairs are not standardly thought to persist in the way that objects do.⁴ Standard accounts of events picture them as perduring occurrents that *take up* (rather than persist as wholes throughout) time and have various parts or stages at different times (Casati and Varzi 2020; Simons 2000; Mellor 1980). Thus, whole events *as such* (standardly conceived) are not candidates for continuance or persistence over time.⁵ Similar points apply to concrete states of affairs. For this reason, we restrict our domain of quantification solely to concrete objects.⁶

It’s worth noting at this juncture that there’s controversy surrounding the notion of concrete objects. Consider, for example, *ontic structural realism* (OSR), according to which only structure exists. There are no objects; there are only relations. There’s also *generalism*, according to which “the most fundamental description of the world is not given in terms of individuals bearing properties, but rather, general facts about which states of affairs obtain” (Glick 2020, p. 751). Still other views recognize concrete objects but characterize them in non-traditional terms. Perhaps (as proponents of material plenitude would have it) there are overlapping objects. Perhaps (as some neo-Carnapian meta-metaphysicians would have it)

⁴Here, we mean “events” as understood in the metaphysics literature. In relativistic physics, an event is standardly defined as a spacetime point. We shall also assume that concrete objects are not *themselves* events (or mere collections thereof).

⁵Events as standardly understood within relativistic physics—that is, spacetime points—are not good candidates for entities that persist over time either, since spacetime points are not typically thought to either perdure or endure in Galilean or Minkowski spacetime (Dasgupta 2015; Maudlin 2012, pp. 54–66; Gilmore 2008, p. 1226).

⁶If one thinks *stuff* is more fundamental than *things* (i.e., objects or substances), then one can simply translate each instance of “temporal concrete object” in our book with “temporal concrete stuff”, and nothing of substance (pun intended) will change. So EIT can also (or only) quantify over temporal concrete *stuff*. For simplicity, though, we’ll cast our discussions in terms of *objects*.

ontological disputes about which objects exist are simply verbal and framework-dependent. And so on.⁷

Exploring debates about OSR, generalism, material plenitude, neo-Carnapian meta-metaphysics, and the like would take us too far afield given present purposes. But a word or two about how they might affect our core focus and arguments is in order. For starters, many such views are fundamentally at odds with the metaphysical underpinnings of the classical theistic proofs with which we're concerned in our book. If OSR is true, for instance, then there are no objects; *a fortiori*, there are no contingent objects, no composite objects, no objects in which essence and existence are distinct, no objects that are admixtures of act and potency, and so on. And yet four of Feser's five proofs—as well as the *De Ente* proof—seem to rely on there being such objects. And—although we haven't the space to establish this in any depth—any re-casting of classical theistic proofs to accommodate such highly non-traditional metaphysical views will likewise allow the re-casting of existential inertia theses in terms of the non-traditional ontologies in question. (So, to continue with the example of OSR: if (some) relations are temporal, then a suitably modified existential inertia thesis would say that some temporal relations persist in existence in the absence of both sustenance/conservation from without and sufficiently destructive factors.) Much more can be said, of course, but we doubt that classical theists would adopt such non-traditional metaphysical views in the first place.

Next up is our fourth scope question, which concerns whether *all* temporal concrete objects inertially persist or only some proper *subset* thereof. In particular, should the existential inertia thesis only quantify over the most fundamental (i.e., basic, foundational, ultimate, not further explained) temporal concrete objects? Both Beaudoin (2007, p. 86) and Schmid (2021a, b, c, fn. 6) express the possibility of the inertial thesis quantifying solely over the fundamental denizens (whatever they may be) of temporal concrete reality.

In principle, then, EIT should leave open whether it quantifies over *all* temporal concrete objects or instead only some (proper) *subset* thereof. This leaves open potential explanatory relations (grounding, efficient sustaining causation, realization, etc.) that might obtain between the fundamental or foundational temporal concrete objects and the non-fundamental, non-foundational ones. Consequently, EIT is compatible with *some* concurrent ontological dependence among temporal concrete objects. As we shall see, our articulation of EIT will leave the fourth scope question open.

Note, moreover, that nothing in EIT demands quantification solely over *material* objects. Perhaps neutral monism is true, or perhaps there exist non-physical temporal concrete objects (like a pantheistic or neo-classical theistic God, say). We take

⁷For more on OSR, see Ladyman (2014) and the references therein. For a nice overview of the literature and issues concerning material plenitude and overlapping objects, see Fairchild (2019, 2020). And for more on neo-Carnapian metaphysical and meta-metaphysical views, see Ritchie (2021) and the references therein. Thanks to an anonymous referee for bringing these issues (and their bearing on our book's focus) to our attention.

no stance on such matters here. So long as some such temporal objects persist in existence without some kind of conserving activity that continuously keeps them in being (and without being destroyed), they inertially persist. Existential inertia is fundamentally about continuance in existence in the absence of both (i) conserving or sustaining activity from without and (ii) sufficiently destructive factors. EIT thus applies to temporal concrete objects satisfying (i) and (ii) regardless of whether those objects are material or immaterial, physical or non-physical, necessary or contingent.

5.3.2 *Persistence and Relativity Theory**

So much for taxonomic questions concerning scope. We turn now to another series of taxonomic questions pertaining to the nature of persistence. In particular, we will ask: what does persistence amount to? Should EIT understand persistence in endurantist terms, perdurantist terms, or something else altogether? How does persistence (and thus EIT) relate to the findings of contemporary physics?

What persistence comes to in light of relativity is a highly non-trivial issue that, unfortunately, has not been adequately addressed in the literature. Nevertheless, there have been some important attempts to marry either perdurance or endurance with relativity (e.g., Gilmore (2006, 2008), Balashov (2000a, b, 2011, 2014), Calosi and Fano (2015)), and we will follow their lead here.⁸

To explore how to understand EIT for relativistic spacetimes, we begin by introducing a three-fold distinction between two non-relativistic spacetimes, viz. Newtonian and Galilean spacetimes, and one simple relativistic spacetime, viz. Minkowski spacetime. In *Newtonian* spacetime, at each time, the universe is a three-dimensional Euclidean space consisting of a collection of absolutely simultaneous spatial points. The spatial points persist over time; moreover, objects can be at absolute rest by occupying the same spatial point(s) at successive times. In *Galilean* spacetime, the universe, at each time, is again a three-dimensional Euclidean space composed of a collection of absolutely simultaneous spatial points. However, absolute rest does not exist in Galilean spacetime; for that reason, spatial points do not persist through time, even though material objects may. On either Newtonian or Galilean spacetime, material objects can either be wholly located at each of the times at which they exist and so endure or have temporal parts located at each of the times at which they exist and so perdure.

The simplest relativistic spacetime is *Minkowski* spacetime, that is, a relativistic spacetime without gravitational effects. Like Galilean spacetime, the points of Minkowski spacetime are not typically thought to persist because relativity does not

⁸We don't have room to explicate relativity, so we'll assume familiarity therewith on the part of the reader. We hope that readers unfamiliar with relativity will nevertheless be able to grasp the general gist of our discussion. Philosophers interested in learning relativity can consult Nerlich (2013), Maudlin (2012), Geroch (1981), and Russell (1925), *inter alia*.

allow for absolute rest. However, in contrast to both Newtonian and Galilean spacetimes, the standard conception of Minkowski spacetime holds that there are no absolute simultaneity relations between any two numerically distinct spacetime points. And since there are no absolute simultaneity relations between any two numerically distinct spacetime points, we should not think of Minkowski spacetime as being objectively divisible into three-dimensional spaces located at successive times. As Hermann Minkowski put the point in 1908, “Henceforth space by itself, and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality” (Minkowski 1952, p. 75).

In Newtonian and Galilean spacetime, relations of absolute simultaneity allow one to define absolute time—two objects that are absolutely simultaneous are said to be at the same time. But without absolute simultaneity, no two numerically distinct objects can be objectively said to occupy the same time. Leaving aside the possibility of extended simples, any non-point-like material object *O* has some spatiotemporal extension and so has some collection of numerically distinct proper parts. If no two numerically distinct objects can objectively be said to occupy the same time, then no two numerically distinct proper parts of *O* can objectively be said to occupy the same time.

Standard conceptions of endurance and perdurance are not obviously compatible with relativity. In order for *O* to objectively and wholly occupy a time (as is required on a standard conception of endurance), all of *O*’s proper parts need to occupy the same time—i.e., all of *O*’s proper parts need to be objectively simultaneous with each other. On the other hand, on a standard conception of perdurance, while *O* is a spacetime worm, each of *O*’s temporal parts occupies a distinct time. In order for a temporal part *p* of *O* to occupy a time, the proper parts of *p* need to be located at the same time (i.e., to be absolutely simultaneous with each other). In a relativistic spacetime, no two numerically distinct spacetime points are absolutely simultaneous and so no objects perdure in the traditional sense in relativistic spacetimes. While no objects endure or perdure in the traditional sense in relativistic spacetimes, we can modify the definitions of endurance and perdurance to allow for the possibility of endurance or perdurance in relativistic spacetimes.

In order to introduce relativistic conceptions of endurance and perdurance, we need to first place some conceptual machinery on the table. Following Gilmore (2008), we can define a binary locational predicate “is weakly located at.” For *O* to be weakly located at a spacetime region *R* is for *O* to spatiotemporally overlap *R*, that is, for *R* to not be completely free of *O*. As Gilmore defines it, *R* is *O*’s *path* just in case *R* “has a subregion in common with all and only those regions at which the object is weakly located” (2008, p. 1228). Or, as Calosi and Fano describe, “the path of an object is simply the union of its exact locations” (2015, p. 287). For the perdurantist, *O*’s path will turn out to be the spacetime region occupied by *O*’s spacetime worm, whereas for the endurantist, *O*’s path will turn out to be the mereological sum of all the spacetime regions that *O* occupies throughout *O*’s life.

Gilmore proceeds by employing the notion of an *achronal surface* (Gilmore 2008, p. 1228). In relativistic spacetimes, any spacetime point *A* can bear one of

three relations to any other spacetime point B: A is *light-like* related to B just in case a signal moving at the speed of light can propagate from A to B or from B to A; A is *time-like* related to B just in case a signal moving slower than the speed of light can propagate from A to B or from B to A; and A is *space-like* related to B just in case a signal cannot propagate from A to B or from B to A without exceeding the speed of light. A surface is *achronal* just in case any two numerically distinct points on the surface are space-like related to each other. (For a formal definition of “achronal surface,” see Calosi and Fano 2015, p. 287.) Here, we use the term “surface” in a fairly general way; for example, an achronal surface can be a three-dimensional slice of the spacetime block. In fact, achronal surfaces are, in some sense, the relativistic analogue of the three-dimensional spaces located at distinct times that are included in Newtonian and Galilean spacetimes, though one should not make the mistake of thinking that numerically distinct points located in an achronal surface occupy one and the same time. For Gilmore, O *persists* just in case O has a path that is not achronal. Put another way, O persists just in case O’s path includes two spacetime points that are either time-like or light-like related.

We can now define an *achronal part* P of O such that “(i) P’s path is an achronal slice of O’s path, (ii) P and O are co-composed at P’s path, and (iii) P is a part of O at P’s path” (Gilmore 2008, p. 1228).⁹ O can then be said to *mereologically perdure* just in case O has a “sufficiently full distribution” of achronal parts—e.g., “perhaps one for each achronal slice of its path, perhaps one for each continuous temporal ‘chunk’ of its path, perhaps even one for each sum of achronal slices of its path” (Gilmore 2008, p. 1228) or, as on Calosi and Fano’s version, perhaps one for each intersection of a Cauchy surface with O’s path. Moreover, O *locationally perdures* just in case O is exactly located at the spacetime regions where O persists. We can also define mereological endurance: O mereologically endures just in case O persists but does not have such a distribution of achronal parts. (For the sake of intuition, compare what we’d say in Newtonian or Galilean spacetime: O mereologically endures just in case O has all of O’s parts at each of the times that O exists instead of having a scattering of parts across spacetime.) Likewise, we can define locational endurance: O locationally endures just in case all of O’s exact locations are achronal regions.

Fully fleshed out and plausible versions of mereological and locational perdurance should be available, too. For example, we could say that objects should be identified with their spacetime worms and that they are exactly located at their paths. How to fully flesh out and render plausible either mereological or locational endurance is not as obvious. One can render perdurance or endurance consistent with the empirical adequacy of relativity by either (i) replacing perdurance or endurance with appropriate relativistic analogues, (ii) replacing relativity with an empirically equivalent theory that includes relations of absolute simultaneity, or (iii)

⁹For an alternative definition in terms of the intersection of a Cauchy surface with O’s path, see Calosi and Fano (2015, pp. 287–288).

introducing additional structure into relativistic spacetimes in virtue of which one can define absolute simultaneity relations. Each of these three possibilities faces formidable difficulties that often go underappreciated in philosophy of religion. For example, William Lane Craig (1990, 1999, 2001b, c, 2008, 2017) has suggested replacing relativity with Neo-Lorentzianism, a theory supposedly empirically equivalent to Special Relativity. Neo-Lorentzianism restores three-dimensional spaces located at distinct absolute times. And if Neo-Lorentzianism is true, the endurance of objects is no more problematic than the endurance of objects in Galilean or Newtonian spacetime.

However, if Neo-Lorentzianism is true, then space and time only *appear*, and do not actually, satisfy Lorentz invariance, a symmetry principle central to Special Relativity. Although Lorentz invariance *itself* cannot be directly experimentally or observationally verified, Lorentz invariance has been an important tool in the development of highly successful work in particle physics, including the development of quantum electrodynamics. Quantum electrodynamics has enjoyed incredible empirical success; as one example, quantum electrodynamics predicts a correction to the magnetic moment of the electron that has been experimentally verified to within around one part in a trillion (Gabrielse et al. 2019; Hanneke et al. 2008). Never mind precisely what Lorentz invariance or the magnetic moment are; our point is that quantum electrodynamics makes the most accurate prediction in the history of science. This degree of empirical success would be very surprising if Neo-Lorentzianism turned out to be true.

As part of their defense of the A-theory of time and an absolute time parameter, other authors (e.g., Mullins 2016b, p. 34; DeWeese 2004; Craig 2001a, b) have pointed out that Special Relativity has been succeeded by General Relativity, that a specific class of General Relativistic spacetimes—Friedmann-Lemaître-Robertson-Walker (FLRW) spacetimes—appears to pick out a preferred way to cut spacetime into three-dimensional surfaces, and that the observable universe appears to at least approximate an FLRW spacetime. Each of the three-dimensional surfaces can then (supposedly) be interpreted as a moment of absolute time and to pick out a collection of spacetime points, all of which are (supposedly) absolutely simultaneous. If this proposal succeeds, then endurance would again turn out to be no more mysterious than endurance was in Newtonian or Galilean spacetime.

However, this proposal encounters a series of problems. To start, compare the relationship between Newtonian gravity and General Relativity to the relationship between Special Relativity and General Relativity. General Relativity is a successor to Newtonian gravity in the sense that Newtonian gravity made incorrect predictions where General Relativity made correct predictions—e.g., unlike Newtonian gravity, General Relativity correctly predicts the precession in Mercury's orbit. In contrast, there is no prediction made by Special Relativity that is not also made by General Relativity. General Relativity succeeds Special Relativity only in the sense that Special Relativity has a smaller scope; when we appropriately restrict our scope, Special Relativity is a *deductive consequence* of General Relativity. Moreover, the metaphysics postulated by Newtonian gravity is incompatible with the metaphysics

postulated by General Relativity. Whereas Newtonian gravity postulates mysterious forces that instantaneously act across vast distances in absolute space, General Relativity postulates influences due to the curvature of spacetime that propagate at finite speeds. In contrast, since Special Relativity is a special case of General Relativity, Special and General Relativity should not be given distinct metaphysical interpretations. For that reason, General Relativity should not be thought of as supplying us with absolute time any more than Special Relativity should be. Furthermore, FLRW spacetimes require that the distribution of matter-energy within the universe is homogeneous and isotropic. But the matter-energy density increases dramatically between points outside and points inside (say) the Earth; clearly, our universe is not homogeneous and isotropic. Instead, our universe is only homogeneous and isotropic *on average*.¹⁰ But endurance was supposed to be a theory about the persistence of material objects and not a theory that held true only for the large-scale statistical properties of the universe.

Now, there are proposals for how non-homogeneous and non-isotropic spacetime might be sliced into some preferred collection of three-dimensional surfaces; for example, there are some theoretical reasons for thinking that spacetime should be sliced into surfaces of Constant Mean (extrinsic) Curvature (CMC) (Crisp 2008, 2012; Monton 2006; Pitts 2004; Saunders 2002, p. 290; Craig 2001b, p. 236; Valentini 1996, p. 60). Never mind precisely what the CMC slicing amounts to (see Lockwood 2007, pp. 118–120 for a non-technical introduction); for the purposes of our discussion, we need only highlight that there are empirical arguments against the possibility of cutting our cosmos into CMC surfaces.¹¹ For example, Michael Lockwood (2007, p. 152) argues that insofar as we have indirect evidence for black hole decay via Hawking radiation, we have evidence that spacetime cannot be globally sliced into CMC surfaces.

In summary, the philosophical literature on existential inertia and persistence arguments will be incomplete until that literature's account of temporal persistence has been thoroughly brought up to date with our best science. We hope that our analysis above will serve as both a foundation and jumping-off point for further analysis and exploration into inertial persistence in light of relativity theory. And with taxonomic questions concerning persistence thus covered, we turn to our next set of taxonomic questions concerning modal register.

¹⁰ This point against cosmic time as a candidate for absolute time has previously been made in, e.g., Saudek (2020, p. 56) and Lockwood (2007, pp. 117–118). As Gerald Whitrow describes, “cosmic time is essentially a statistical concept, like the temperature of a gas” (1961, p. 246). Also see Linford (2021, pp. 27–28).

¹¹ Since cosmic time depends on CMC slicing, note that evidence against the view that our universe can be globally sliced into CMC surfaces is *also* evidence against the view that cosmic time can be adequately defined.

5.3.3 *Modal Register*

Here's the first modal question: is the inertial thesis *necessarily* true if true at all? Explicit inclusion of the necessity operator is only found in Schmid's EIT. And while we agree that "because existential inertia and existential expiration are (or would be) such broad, foundational metaphysical features of reality, it seems that they would *necessarily* obtain if they obtain at all" (Schmid 2021a, p. 202), we will leave open the modal register of our thesis.

The second modal question is: do the temporal concrete objects within the domain of quantification *actually* persist without continual sustenance, or do they merely persist *without requiring* continual sustenance? The former entails the latter, but not vice versa. Recall that Schmid's EIT only says that objects persist *without requiring* sustaining causes. Importantly, though, this is perfectly compatible with *actually having* sustaining causes. Schmid's EIT therefore does not rule out (at least in principle) a scenario in which *all* temporal concrete objects are continuously conserved or sustained in being from without. This result may be unpalatable for inertialists who want their thesis—if true—to secure the *actual* inertial persistence of at least some temporal concreta. For this reason, our thesis affirms that some objects *actually* inertially persist.

5.3.4 *Dependence and Destruction*

Still further taxonomic questions concern the kind of *ontological dependence* denied of inertially persistent objects. The inertial theses of Schmid and Audi only deny the concurrent efficient *causal* dependence of inertially persistent objects on things *ad extra*. But this seems too weak. Suppose all temporal concrete objects have an external sustaining explanation *not* in terms of an efficient cause but instead in terms of a *ground*. Pearce (2017), for instance, argues that God is the non-causal *ground* of the realm of non-God concrete objects. (See also Oppy and Pearce 2022.) In that case, every temporal concrete object concurrently depends on some external ground. But surely no temporal objects in this scenario enjoy existential inertia. Consequently, inertial theses should deny more than (concurrent) efficient *causal* dependence on things *ad extra*. One dependence question, then, is: what kind of ontological dependence is denied of inertially persistent objects?

Now, as we use it—and bearing in mind that this is a rough approximation—*x* ontologically depends on *y* just in case there is some (extramental) explanatory relation (e.g., causing, grounding, realizing) between *y* (the explanans) and *x* (the explanandum), such that *x* would not exist if *x* were not standing in this explanatory dependence relation to *y* (say, because *y* is no longer engaging in the relevant

activity).¹² But this definition alone doesn't fully capture the ontological dependence that EIT denies of inertially persistent objects. Also important to include is that EIT denies that inertially persistent objects ontologically depend on the *concurrent existence or activity* of *y* (at any moment at which *x* exists). Call this notion of ontological dependence *concurrent ontological dependence*, which is meant to capture the notion of *sustenance* or *conservation*. We can more precisely define concurrent ontological dependence as follows:

For any *x* and any *y*, *x* *concurrently ontologically depends* on *y* =_{def} (i) *x* ontologically depends on *y*'s existence or activity; (ii) *x* and *y* are concrete; and (iii) either *y* is timeless or else simultaneous with *x*.¹³

Thus, to a rough approximation, EIT debars *vertical* or *hierarchical* dependence on concrete things, not *horizontal* (i.e., transtemporal or the relativistic analogue of transtemporal) dependence thereon.

But that isn't all. Plausibly, inertial theses should affirm that, for each *O* within the scope of the inertial thesis, *O*'s existence does not concurrently ontologically depend on *any O* that is not part of O*. Many think it's plausible that any composite *O* ontologically depends (at least in some sense) on *O*'s parts. In order to maintain plausibility, then, inertial theses should allow *constitutive* dependence. What inertial theses should deny is that inertially persistent objects are concurrently ontologically dependent on (e.g., concurrently caused by, grounded in, or realized by) things numerically distinct from and wholly *outside* them—that is, by *non-parts*.

Furthermore, inertial theses should plausibly remain neutral on concrete objects' dependence on abstract objects. Suppose, for instance, that temporal concrete objects like people, particles, and platypuses have a range of essential properties, and suppose further that their having such properties is a matter of exemplifying or instantiating the relevant abstract universals. Finally, suppose that such abstract universals are *not parts* of the concrete objects in question. In the case at hand, one might think that temporal concrete objects ontologically depend on numerically distinct, non-constituent objects. Thus, in order to avoid entanglement with debates concerning abstract objects, we advise that inertial theses only deny that temporal concrete objects ontologically depend on numerically distinct, non-part *concrete* objects.

What about destruction? What must be done in order to eliminate entities with inertial persistence and bring about their cessation? As with sustenance, Schmid's and Audi's inertial theses are cast in terms of *causal* destruction. But, plausibly, we

¹² If you think explanation is mind-dependent (and so not *extramental*), replace our talk of "(extra-mental) explanatory relations" with "relations of dependence that *underwrite* explanation."

¹³ In (orthodox) relativistic spacetimes, there won't be relations of absolute simultaneity among numerically distinct spacetime points, and so—at least in typical cases—the second disjunct of (iii) won't be satisfied. An alternative, relativity-friendly way to explicate *concurrent ontological dependence* that—as far as we can tell—would work equally well for our inertial theses would replace (iii) with (iii*): the dependence relation *x* bears to *y* isn't *transtemporal* (in relativistic terms, *y* isn't time-like or light-like related to *x*).

should broaden this to include uncaused but (say) grounded or functionally realized destruction.

Moreover, if absences can serve as causes, then a problem for Schmid's EIT arises. For if absences can serve as causes, then the absence or withdrawal of (say) divine timeless conservation of O (for any O within EIT's scope) might plausibly be a *cause* of O's ceasing to exist, such that any actual withdrawal of such conserving activity causes the cessation of O. Suppose, moreover, that every temporal concrete object is continuously sustained in existence (even though—*ex hypothesi*—they do not *require* sustenance in order to persist). Given these stipulations, both (i) and (ii) of Schmid's EIT are satisfied: (i) O persists without *requiring* sustenance (though O is *in fact* continuously sustained), and (ii) O ceases only if caused to cease (by a withdrawal of God's sustaining activity, say). Thus, assuming that absences can serve as causes, Schmid's EIT renders the following conjunction possible: (i) nothing inertially persists (since every temporal concrete object is continuously conserved or sustained in being from without), and yet (ii) EIT is true. This seems implausible. By our lights, the truth of an inertial thesis should secure the *actual* inertial persistence of at least some temporal concrete objects.

This problem could potentially afflict other inertial theses that reference causal destruction. To avoid controversial debates about causal relata, then, inertial theses should generally be cast in terms of *positive destruction*—some positive activity performed on O (either from within or from without) that brings about O's cessation (i.e., that makes O cease to exist). This avoids altogether the question of whether absences can serve as causes and also allows for uncaused but (say) grounded or functionally realized destruction. Importantly, though, we *could* formulate all our inertial theses in terms that don't require *positive* destruction but simply *bare destruction*, whether positive or negative (where *negative* destruction refers to the cessation of an object due to an absence). If we did so, we would simply emphasize that any case of negative destruction of an inertially persistent object O will *not* involve the absence of sustenance or conservation by a concrete non-part of O. (E.g., perhaps it will simply involve the absence of some *internal* ground or cause of O's existence.) We won't flesh out these alternative theses for purposes of space, but they're important to highlight in case anyone has objections to our theses cast in terms of positive destruction.¹⁴

Sticking with positive destruction, though, we can formulate this notion in four ways. First, let's define a *t-temporal part* as an object's temporal part existing at time t. Then two such ways to define positive destruction are:

¹⁴ We'll use "positive destruction" and "destruction" interchangeably for simplicity. Thus, going forward, whenever we say "destruction", we mean *positive* destruction. If we ever want to speak of *bare destruction* (i.e., either positive or negative destruction), we'll explicitly use "bare destruction."

Positive destruction of enduring objects in Galilean/Newtonian spacetime: to positively destroy *O* at time *t* is to actively bring about *O*'s cessation at *t*, such that *O* endures through $[t', t)$ but not $[t, t]$, where $t' < t$.¹⁵

Positive destruction of perduring objects in Galilean/Newtonian spacetime: to positively destroy a *t*-temporal part of *O* is to actively prevent said *t*-temporal part from existing (such that the *t*-temporal part *would have* existed *had* the active prevention not occurred). So, to destroy a *t*-temporal part of *O* is to act on one or more temporal parts of *O* in some interval $[t', t)$, where $t' < t$, so as to actively prevent the existence of *O*'s *t*-temporal part.¹⁶

We have left two more ways of characterizing positive destruction: the positive destruction of enduring and perduring objects in *relativistic* spacetimes. We postpone characterizing these until Sect. 5.4 where we introduce some additional formalism. For now, we turn to our penultimate taxonomic question.

5.3.5 Metaphysical Accounts*

The central metaphysical question any fleshed out characterization of the inertial thesis must address runs: in virtue of *what* does inertial persistence obtain (if it obtains at all)? Answers to this question are *metaphysical accounts* of existential inertia—coherent stories on which persistence is explained in inertialist-friendly terms (i.e., terms which don't commit to the thesis that every temporal concrete object *O* is continuously conserved by some concrete non-part of *O*). We'll here simply provide a brief overview of metaphysical accounts, leaving further development for the next chapter.

Beaudoin (2007, pp. 88–89) provides a metaphysical account on which *O*'s inertial persistence is explained by the following conjunction: (i) the only power capable of annihilating *O* has thus far been unexercised, and (ii) *O* lacks a tendency to spontaneously disappear. Benocci (2018, pp. 59–63) adduces a lightweight account of dispositions in conjunction with a Complementarity Principle to account for inertial persistence. We might call the family of accounts like Beaudoin's and Benocci's *tendency-disposition accounts*. Such accounts are united in their appeal to tendencies or dispositions.

¹⁵There may be a sorites paradox associated with positive destruction of material objects. For example, if a material object goes out of existence by losing constituent atoms, there might be no specific number of atoms that sharply divides existing from not existing and so no particular time at which the object goes out of existence. But, clearly, there is a time when a given material object has not gone out of existence and a time when the object has already gone out of existence. Thus, instead of defining positive destruction as taking place at a specific time, positive destruction can be defined as taking place somewhere in a *range* of times. In any case, we can ignore this complication for present purposes.

¹⁶Note that this is a stipulative definition of "destruction." We recognize that it may sound odd to call it "destruction." What matters for present purposes is that we have a clear and precise definition of the relevant concept. If the reader still demurs at our usage, simply replace the word with another, more fitting one.

Another family of accounts all appeal to some kind of transtemporal relation(s) to explain (inertial) persistence. We can call such accounts *transtemporal accounts*. For example, the prior state of an object might cause the object to persist to later times. On Schmid's first account, the absence of sufficiently destructive causal factors plus transtemporal explanatory relations (causal or otherwise) obtaining between the temporally successive states of O's life suffices for explaining why O persists (2021a, pp. 205–109). Likewise, Mackie (1974) explains the persistence of O in terms of transtemporal causal relations between the successive phases of O's life.

Another family of accounts might be termed *law-based accounts*. Law-based accounts grant physical law a special role in explaining (inertial) persistence. Maudlin (2007) defends one such account on which the persistence of objects is explained by physical law (p. 9). For Maudlin, successive states of the universe are produced from prior states of the universe: "The laws of temporal evolution operate, whether deterministically or stochastically, from that initial state to generate or produce later states" (p. 174). And, as Maudlin later tells us, "The universe, as well as all the smaller parts of it, is *made*: it is an ongoing enterprise, generated from a beginning and guided towards its future by physical law" (p. 182). Consequently, for Maudlin, successive states of objects are generated or produced from prior states of those objects in virtue of physical law. More generally, philosophers who, like Maudlin, maintain a non-Humean account of physical law—that is, philosophers who maintain that there are necessary connections linking states of affairs at distinct times (or on distinct Cauchy surfaces)—can say that O's existence at one time (or on one Cauchy surface) is necessitated by O's existence at other times (or on other Cauchy surfaces), together with the condition that no state of affairs obtains that would positively prevent O's continued existence. And this, according to law-based accounts, can equip one with an explanation for O's persistence.

Accounts we term *necessity accounts* explain inertial persistence in some way or another by appeal to metaphysical necessity. Schmid's second account of inertial persistence is one such account. According to this account, inertial persistence is explained by the *metaphysical necessity* thereof, with this necessity being primitive (i.e., not further explained) (2021a, pp. 209–211). One might also explain the persistence of non-fundamental, non-foundational temporal concreta by their being caused by, grounded in, realized by, or constituted by one or more fundamental, foundational temporal concreta that exist of *metaphysical necessity*. Non-fundamental persistence, on such a view, would be explained by fundamental persistence; and fundamental persistence would be explained by appeal to the metaphysically necessary existence of the fundamental object(s) (as well as their being temporal and so liable to persist). A theist inclined to divine temporality might

identify the fundamental temporal object with God.¹⁷ A non-theist might identify such an object or objects with one or more quantum fields, superstrings, quarks, mereological simples, module tropes, the universal wavefunction,¹⁸ or what have you. Other necessity accounts are available, but we'll wait until the next chapter to introduce them.

A still further family of accounts could be termed *no-change accounts*. These accounts view persistence as an *absence* of change and take this fact to be central to their explanation of (inertial) persistence. Schmid's third account of inertial persistence is an example of a no-change account. According to this account, existence is a state or condition of stasis or unchangingness (2021a, fn. 19), and states of stasis by their very nature diverge only when positively disrupted. (See Schmid (2021c) for further development.) Another no-change account is given in Oppy (2021): "Potentials to remain unchanged do not require distinct actualizers; all they require is the absence of any preventers of the actualization of those potentials" (p. 4). Oppy proceeds to apply this thesis to the persistent *existence* of temporal concrete objects. Rundle (2004, pp. 88–92) similarly holds that persistence is not itself a change and concludes, on that basis, that no continuously operative sustaining cause is needed to explain it. (Another aspect of Rundle's account is explaining the passage of time, which we discuss in the next chapter.)

Finally, Ingthorsson (2021, ch. 6) gives a causal interaction account of both constitution and persistence, arguing that the continued unity (and hence existence) of composite temporal concrete objects is explained internally by the continuous and dynamic glue-like interactions of their parts.¹⁹ Accounts bearing a family resemblance to Ingthorsson's could be deemed *interactionist accounts*.

To our knowledge, we have provided the first survey of the various metaphysical accounts of EIT on offer. We have grouped the extant ones into families: tendency-disposition accounts, transtemporal accounts, law-based accounts, necessity

¹⁷ Remember that we're responding to *persistence arguments*, which are distinctively for the existence of the timeless and immutable God of *classical theism*. Thus, the divine temporalist, no less than the non-theist, owes a response to such arguments. For a defense and exposition of divine temporality, see Mullins (2016b). For an exposition of neo-classical theism and panentheism, see Mullins (2016a).

¹⁸ Where the universal wavefunction is viewed as *temporal*. On some views, however, the universal wavefunction is viewed as *atemporal*. See the discussion and references in Sect. 8.3 for more on this.

¹⁹ Thus, Ingthorsson writes: "I think there are very obvious causal aspects to the constitution and continued existence of compound entities, especially in light of the scientific image of the world. Just consider the explanations given in secondary education physics and chemistry of the physical bonds that hold compound objects together, say, how elementary particles constitute an atom through continuous interaction. Physics, chemistry, and biology simply do not depict the entities they study as things that passively continue to exist as long as nothing destroys them; they continuously and actively preserve themselves through the interaction of their constituents" (2021, p. 99). Ingthorsson's account of the persistence of composite material objects is inertialist insofar as their persistence is not explained by some *non-part* concrete object that sustains them in being. (It should be noted, though, that the account is restricted to explaining only the persistence of *composite* material objects.)

accounts, no-change accounts, and interactionist accounts. Our purpose here is not to *assess* such metaphysical accounts. Instead, we wish to highlight the need for both defenders and detractors of inertial theses to address the present taxonomic question under consideration in their criticisms and defenses of EIT. As Schmid (2021a, pp. 216–219) points out—and as we will see time and again in Chap. 7—many of the criticisms of existential inertia (like those in Feser 2011) simply fail to take into account the various inertialist-friendly explanations of persistence on offer.

We will explore the first five of these accounts in much more detail in the next chapter. For present purposes, a brief survey is useful for illustrating the variety of approaches philosophers have taken in answering the metaphysical taxonomic question. In the next section, we pause our discussion of the taxonomic questions in order to introduce our EIT. Having introduced our thesis, we will use it to explore a final taxonomic question concerning temporal ontology.

5.4 EIT*

We consider two theories of persistence—perdurance and endurance—and three kinds of spacetime—Newtonian, Galilean, and relativistic. We will use our answers to the taxonomic questions previously considered to build inertial theses for the various possible combinations of theories of persistence with kinds of spacetime while avoiding the various problems afflicting the inertial theses of Audi, Schmid, and company. We will then define EIT as the disjunction of the various inertial theses.²⁰ We start by articulating our inertial thesis for endurance and Newtonian or Galilean spacetimes:

Newtonian/Galilean Endurantist Existential Inertia Thesis (NGE-EIT): For each member *O* of a (proper or improper) subset of temporal concrete objects and for each time *t* such that *O* exists at some time *t** earlier than *t*, (i) at *t*, *O* does not concurrently ontologically depend on the existence or activity of some concrete object *O**, where *O** is not a (proper or improper) part of *O*, and (ii) if *O* is not positively destroyed within the temporal interval [*t**, *t*], then *O* exists at *t*.

What about the relativistic analogue of NGE-EIT? First, let's define " \ll " such that for achronal surfaces *x* and *y*, $x \ll y$ if and only if every point in the achronal surface *x* is in the past light cone of some point in *y*, that is, *x* is in the absolute past of *y*. Second, note that on relativistic accounts of endurance, the analogue of times—importantly, the times at which *O* wholly exists—are a specific set of achronal surfaces; how that set of achronal surfaces is picked out will depend on the specific account of endurance.

²⁰ For the purposes of this chapter, we will assume that material objects are composed of point-like proper parts and ignore the complications posed by quantum mechanics. However, any full articulation of EIT, and consequently any full articulation of a persistence argument that denies EIT, will be incomplete until our best, mature scientific theories have been accounted for.

For any point-like proper part p of O , there is a time-like curve traversed by p . Because O is spatiotemporally extended and has at least two space-like separated proper parts, there exists a collection of time-like curves traversing O 's path such that each curve in the collection is the trajectory of one point-like proper part of O . Call that collection O 's *congruence* and formally denote O 's congruence by $\text{Cong}(O)$. $\text{Cong}(O)$ is not necessarily restricted to O 's path because $\text{Cong}(O)$ can, in principle, be extended beyond O 's path by continuing the trajectories of the point-like proper parts of O under restrictions imposed by the relevant physical laws. For example, suppose the existential inertia thesis is false and O stops existing when O is not sustained in existence by some external concrete entity E . In that case, the path of O could be cut prematurely short if E no longer sustains O , but we could still use physical laws to project where O 's path would have been had E continued to sustain O . That projected (but non-actual) path is a portion of $\text{Cong}(O)$.

On relativistic endurantist accounts, O mereologically endures just in case O is wholly located at a specific collection of achronal surfaces intersecting O 's path, where the specific collection is determined by which relativistic endurantist account one chooses. (For example, Balashov (2000b, 2014) has considered an account on which O is wholly located at all of the space-like surfaces intersecting O 's path.) We leave open which endurantist account, if any, is correct and so leave open which collection of achronal surfaces is relevant. In any case, define $\text{SCong}(O)$ to denote this collection of achronal surfaces. Because $\text{SCong}(O)$ occupies the same space-time region as $\text{Cong}(O)$, we can continue $\text{SCong}(O)$ beyond O 's path the same way that we continued $\text{Cong}(O)$ beyond O 's path. Consider, then, two achronal surfaces, $a \in \text{SCong}(O)$ and $a^* \in \text{SCong}(O)$, that bound a portion of $\text{Cong}(O)$ and are such that (i) $a^* < a$ and (ii) O wholly exists on a^* . In that case, if nothing positively destroys O along $\text{Cong}(O)$ between a^* and a , then, according to the existential inertialist, O also wholly exists on a . For a formal definition, we have:

Relativistic Endurantist Existential Inertia Thesis (RE-EIT): For each member O of a (proper or improper) subset of spatiotemporal concrete objects and for each surface $a \in \text{SCong}(O)$ such that O exists on some achronal surface $a^* \in \text{SCong}(O)$ and $a^* < a$, (i) on a , O does not concurrently ontologically depend on the existence or activity of some concrete object O^* , where O^* is not a (proper or improper) part of O , and (ii) if O is not positively destroyed on any surface $s \in \text{SCong}(O)$ such that $a^* < s < a$, then O exists on a .

Recall that we've left the characterization of the positive destruction of enduring objects in relativistic spacetimes to this section. To positively destroy O on achronal surface s is to actively bring about O 's cessation on s , such that O endures through the portion of $\text{SCong}(O)$ beginning at some achronal surface $s' \in \text{SCong}(O)$, where $s' < s$, but does not exist on s .

We previously gestured towards (and set aside for purposes of this paper) a problem for positive destruction in Newtonian/Galilean spacetimes according to which the end of the life of a material object may be vague. In some sense, this problem is exacerbated by the positive destruction of objects in relativistic spacetimes. To see why, first suppose that all of the atoms comprising O cease to exist at the same time according to reference frame F . In that case, there will be another reference frame F^* in which the atoms comprising O do not go out of existence at the same time.

Second, notice that, since the atoms comprising *O* will, in general, be in motion relative to each other, even if all of *O*'s atoms go out of existence at one time in the rest frame of one of the atoms, *O*'s atoms will not generally go out of existence at the same time in the rest frames of other atoms comprising *O*. And, third, there is some difficulty associated with defining the rest frame of a composite object in relativistic spacetimes.

These difficulties can be addressed with a solution parallel to the one that we sketched in the Newtonian/Galilean case. That is, positive destruction can be defined as having taken place within some spacetime region sandwiched between two achronal surfaces. In any case, as with the Newtonian/Galilean case, we can ignore this complication for the purposes of this chapter.

Debates concerning existential inertia tend to be cast in terms of endurantism. And although endurantism and A-theory are often tied together in such debates, there has long been reason to think that objects can endure in Newtonian or Galilean spacetime blocks by being multiply located at all the times at which they exist (cf. van Inwagen 1990). Moreover, both NGE-EIT and RE-EIT make no use of tensed facts and so are consistent with both A-theory and B-theory. But we need not artificially restrict existential inertia to endurantism; thus, we proceed to sketch articulations of existential inertia available to perdurantists. Again, we first formulate an inertial thesis applicable to Newtonian or Galilean spacetimes. Consider the following:

Newtonian/Galilean Perdurantist Existential Inertia Thesis (NGP-EIT): For each member *O* of a (proper or improper) subset of temporal concrete objects and for each time *t* such that *O* has some *t**-temporal part earlier than *t*, (i) *O*'s *t*-temporal part does not concurrently ontologically depend on the existence or activity of some concrete object (or temporal part of some object) *O** numerically distinct from any temporal part of *O*, where *O** is not a (proper or improper) part of *O*'s *t*-temporal part, and (ii) if none of *O*'s temporal parts within the interval [*t**, *t*] are positively destroyed, then *O*'s *t*-temporal part exists.

In essence, NGP-EIT states that an object perdures at non-first times of *O*'s temporally extended life without concurrent ontological dependence on concrete non-parts of *O* *so long as* nothing positively destroys *O*'s temporal parts (which, recall, means that nothing actively prevents *O* from having such parts). Likewise, we can formulate an inertial thesis for perduring objects in relativistic spacetimes:

Relativistic Perdurantist Existential Inertia Thesis (RP-EIT): For each member *O* of a (proper or improper) subset of temporal concrete objects and for each achronal surface *a* such that *O* has some achronal part *p** on *a** where *a** << *a*, (i) *p* does not concurrently ontologically depend on the existence or activity of some concrete object (or achronal part of some object) *O** numerically distinct from any achronal part of *O*, where *O** is not a (proper or improper) part of *p*, and (ii) if none of *O*'s achronal parts within the portion of *Cong*(*O*) connecting *a** to *a* are positively destroyed, then *O* has an achronal part *p* on *a*.

Recall once more that we left the characterization of the positive destruction of a perduring object in relativistic spacetime to this section. To positively destroy an achronal part *p* of *O* on achronal surface *s* is to actively prevent *p* from existing on *s*, such that *O* perdures on the portion of *SCong*(*O*) to the absolute past of *s*, and in such a way that *p* would have existed on *s* had the active prevention not occurred.

At long last, we can now define EIT as the disjunction of NGE-EIT, RE-EIT, NGP-EIT and RP-EIT.

Existential Inertia Thesis (EIT): NGE-EIT or RE-EIT or NGP-EIT or RP-EIT.

Having defined our EIT, we can now turn to our final taxonomic question.²¹

5.4.1 Temporal Ontology*

The intersection between EIT and temporal ontology raises one final taxonomic question that inertial theses should answer: what is the temporal ontology within which the inertial thesis is articulated and understood? Three issues are included under temporal ontology: (i) the ontological status of moments of time (presentism, eternalism, growing block, etc.), (ii) the objective un/reality of temporal becoming (A-, B-, C-theories, or something else altogether), and (iii) the manner in which objects persist (endurantism, perdurantism, etc.). We've already covered (iii), so let's examine (i) and (ii).

Let's turn, first, to the ontological status of moments of time. Non-relativistic presentist, eternalist, growing block, and moving spotlight accounts are easy to come by. Although Newtonian/Galilean spacetimes are typically characterized under the assumption that eternalism is true,²² our discussion of Newtonian/Galilean spacetimes made no such assumption. (Moreover, nothing in our Newtonian/Galilean inertial theses assumes eternalism.) Our Newtonian/Galilean inertial theses are therefore applicable in the context of Newtonian/Galilean versions of presentism, eternalism, growing block theory, and moving spotlight theory. Whether adequate relativistic versions of presentism, growing block theory, or moving spotlight theory can be constructed is more controversial, but to the extent that such accounts *can* be constructed, nothing in our relativistic inertial theses prevents their adoption. And so EIT is consistent with presentism, eternalism, growing block, and moving spotlight.

Now consider the objective un/reality of temporal becoming. As we've already noted, our formulation of EIT does not make use of tensed facts and so is consistent with both A- and B-theory. Our formulation of EIT is probably not compatible with

²¹ Another important taxonomic question—one that we shan't explore in depth in these chapters, as answering the question would implicate us in debates extending far beyond our book's scope—is whether we understand the structure of time *continuously* or *discretely*. For our purposes in this chapter (and throughout this book), we leave this taxonomic question open.

²² Newtonian/Galilean spacetimes are typically understood in what Gilmore et al. (2016, pp. 102–103) call *unitist* terms—that is, as being composed of spacetime points (i.e., points that are neither fundamentally spatial nor temporal). Those points can be divided into equivalence classes that correspond to space at distinct times. (The points composing a relativistic spacetime cannot be so divided.) In contrast, *separatist* accounts of spacetime include two collections of points, one of which is fundamentally spatial and the other of which is fundamentally temporal. We have purposely phrased our characterization of Newtonian/Galilean spacetimes as neutral between unitism and separatism.

C-theory, but we have difficulty understanding what “temporal persistence” could mean if C-theory were true. And so both EIT and persistence arguments run into trouble if C-theory is true.²³

5.5 Conclusion

We have raised a dozen (or so) taxonomic questions for inertial theses. To appreciate the larger picture, we’ve listed each such question below:

- (1) **Scope:** Does the thesis quantify over temporal or non-temporal things (or both)?
- (2) **Scope:** Does the thesis quantify over concreta or abstracta (or both)?

Assuming we only quantify over temporal concreta:

- (3) **Scope:** What *kind* of temporal concreta—objects, events, concrete states of affairs, etc.—inertially persist?

Assuming we only quantify over temporal concrete objects:

- (4) **Scope:** Do *all* temporal concrete objects inertially persist or only some proper *subset* thereof?
- (5) **Persistence:** Will the existential inertia thesis understand persistence in endurantist terms, perdurantist terms, or something else altogether?
- (6) **Persistence:** How does persistence (and thus existential inertia) relate to the findings of contemporary physics?
- (7) **Modal Register:** Is the inertial thesis *necessarily* true if true at all?
- (8) **Modal Register:** Do the temporal concrete objects within the domain of quantification *actually* persist without continual external sustenance, or do they merely persist *without requiring* such sustenance? Related to (7), do they *necessarily* persist without such sustenance and destructive factors operative?
- (9) **Dependence:** What kind of ontological dependence is denied of inertially persistent objects?
- (10) **Destruction:** What does it take for bringing about the cessation of inertially persistent things?
- (11) **Metaphysical Account:** In virtue of *what* does inertial persistence obtain (if it obtains at all)?
- (12) **Temporal Ontology:** What is the temporal ontology—encompassing (i) the ontological status of moments of time, (ii) the objective un/reality of temporal becoming, and (iii) the nature of persistence—within which the inertial thesis is articulated and understood?

²³Though, for our best attempt at accounting for inertial persistence in C-theoretic terms, see Sect. 7.3.9.

This list should serve the blossoming debate surrounding existential inertia. Few (if any) of the many participants in this debate have disentangled and fully appreciated these various aspects of the debate, and this underappreciation must come to an end.

In the next chapter, we will categorize, develop, and assess various metaphysical accounts of existential inertia—that is, inertialist-friendly explanations of persistence. Such metaphysical accounts strengthen the challenge EIT poses for persistence arguments, since—if successful—they show that persistence can be legitimately explained without appeal to the conserving activity of the classical theistic God.

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Chapter 6

The Metaphysics of Existential Inertia



6.1 Introduction

Why do things persist? Much ink has been spilled on different accounts of persistence such as endurantism and perdurantism, but comparably little ink has been spilled on *why* things persist at all. As we've seen, some (e.g., Feser 2009, 2011, 2017) have argued that the only adequate explanation of the persistence of things is in terms of the sustaining or conserving activity of a timeless being. Others argue that the persistence of things is *inertial*—things simply continue existing unless they are positively destroyed. Just as there is no need for some continual impetus of energy or momentum to explain uniform rectilinear spatial motion, there is no need to invoke continual sustenance or conservation from without to explain persistence. This is the heart of the Existential Inertia Thesis (EIT).

The present chapter aims to develop and categorize explanations of persistence that are friendly to EIT—that is, explanations of persistence on which temporal concrete objects (or some subset thereof) persist without external sustenance or conservation unless and until they are positively destroyed. We will not argue for EIT in this chapter, and nor will we make an extended case for any of these explanations. Instead, we will simply argue that there are a variety of legitimate, inertialist-friendly explanations of persistence.

The chapter is significant in several ways. First, it advances the rapidly growing debate on existential inertia. Much of that debate focuses on *whether* EIT is true instead of what *explains* persistence *if* EIT is true. We aim to fill this lacuna by categorizing and fleshing out both the extant proposals and our own, novel proposals. Second, we take the topic to be intrinsically fascinating given its bearing on the ultimate explanation of why things persist in existence. Third, the chapter's topic is

intimately related to other domains of philosophical inquiry. For instance, if there are legitimate, inertialist-friendly explanations of persistence, then a variety of arguments for God's existence are undercut. The chapter also bears heavily on philosophy of time and metaphysics.

In the following sections, we will categorize and develop *metaphysical accounts* of EIT—that is, explanations of persistence on which EIT holds (or can hold). The metaphysical accounts include tendency-disposition accounts (Sect. 6.2), transtemporal accounts (Sect. 6.3), law-based accounts (Sect. 6.4), necessity accounts (Sect. 6.5), and no-change accounts (Sect. 6.6).

We do not take a stance on which of the accounts is best (or which, if any, is true). Instead, we aim to *categorize*, *develop*, and occasionally *sketch motivations* for such accounts. One reason such development is significant is that—as we'll see in Chap. 7—many objections to EIT simply fail to take into account inertialist-friendly explanations of persistence. What's more, the motivations for (some of) the metaphysical accounts that we'll consider here may be used to support EIT.

Finally, before examining the various metaphysical accounts of EIT, let's consider some conditions of adequacy for *any* account or explanation of persistence. First, it is not a necessary condition on an account's adequacy that it posits a *beginning* to the lives of temporal concrete objects. The account need only explain why temporal concrete objects persist *once in existence*, whether or not such objects came into existence a finite time ago. Second, for the same reason, accounts of persistence need not explain why contingent or temporal concrete objects exist at all.

To be sure, the fact that objects begin to exist and the fact that any contingent or temporal objects exist at all may themselves require explanations, but the explanation of either of those facts will generally be distinct from an explanation as to why objects persist once in existence. Thus, adequate explanations of persistence need only explain the *continued* existence of temporal concrete objects.

Let's now consider the first family of metaphysical accounts of EIT: tendency-disposition accounts.

6.2 Tendency-Disposition Accounts

Tendency-disposition accounts explain persistence by appeal to some *tendency* or *disposition* of things to continue in existence. There are at least three closely related tendency-disposition accounts in the literature: Beaudoin's (2007, pp. 88–89),

Benocci's (2018, pp. 59–63), and Oderberg's (2014, pp. 349–353).¹ We'll take these in order, beginning with Beaudoin. Beaudoin's account is worth quoting at length:

It is not part of [EIT] to suggest that the continuance of things is a brute fact. It is explained by reference to the facts (i) that the only power capable of annihilating the world's fundamental material has so far gone unexercised, and (ii) that this material has no inherent tendency to just spontaneously disappear ... Here again the analogy with mechanical inertia is illustrative: the continued uniform motion of a body through space is not to the physicist a mere surd. It is the outcome of the absence of any unbalanced force applied to the object, combined with its natural tendency to keep moving unless such a force is encountered. Of course, one may ask why the motion or existence of any object is characterized by inertia, and the inertialist in either context may or may not be able to provide an answer ... But even if the existential inertialist cannot identify any deeper metaphysical basis for this form of inertia, this in no way invalidates [EIT] as an explanation of the world's continuance; it is not a condition on legitimate explanation that a deeper explanation for every statement in the explanans always be ready to hand, or even that it exist at all. The inertialist may well run into a brute fact somewhere in his accounting for the world's continuance, but it is far from clear that the proponent of DDC [the Doctrine of Divine Conservation] will fare better in this regard. (2007, pp. 88–89)

For Beaudoin, then, the explanation of why inertially persistent object O continues to exist is the following conjunction: (i) the only power capable of annihilating O has thus far been unexercised, and (ii) O lacks a tendency to spontaneously disappear. For if O lacks such a tendency, then O will not spontaneously disappear unless some sufficiently destructive or annihilating factor—whether intrinsic or extrinsic to O—comes along to destroy O. This is part and parcel of what tendencies involve: O has a tendency to manifest some outcome or undergo some process in conditions C if and only if O, when placed in C, manifests said outcome or undergoes said process.² Thus, if O *lacks* a tendency to spontaneously annihilate (i.e., cease to exist) in conditions C—say, when not subjected to sufficiently destructive or annihilating factors—then O, when placed in C, will not annihilate. And provided that O is in C—provided that there is an absence of sufficiently destructive or annihilating factors, as specified by condition (i) of the aforementioned conjunction—it follows that O will not annihilate but will instead persist.

¹Two notes. First, unlike Beaudoin and Benocci, Oderberg doesn't explicitly defend EIT. Nevertheless, Oderberg defends a tendency of temporal concrete objects to persist or continue in existence, and this can quite clearly be employed in the context of EIT. Second, some philosophers develop views in *other* metaphysical domains that can serve as workable tendency-disposition accounts. Mooney (Forthcoming), for instance, argues that objects enjoy *conservation dispositions* to retain their properties (and hence persist in existence) over time. For purposes of space, we won't explore such views here, but they're important to note nonetheless.

²We can set aside the vast literature on masks and finkish tendencies/dispositions (Martin 1994), since we're not concerned here with an *analysis* of tendencies/dispositions. For present purposes, we can either (i) simply build into the account that for all normal cases, persistence and destruction don't succumb to the presence of finks, masks, and the like (which is a plausible assumption, since the examples of finks and masks are often outlandish or non-ordinary); or (ii) restrict the domain of quantification of the inertial thesis (and, consequently, the inertial tendency/disposition espoused in tendency-disposition accounts) to cases where finks, masks, and the like are absent; or (iii) simply include within C the specification that no masks/finks/etc. are operative; or etc.

Thus, according to Beaudoin's account, in order to explain O's persistence, we need only cite the absence of a "spontaneous annihilation tendency" in conjunction with the absence of sufficiently destructive factors operative throughout O's life up until the present.

There is, of course, the further question of why no such (sufficiently) destructive factors have been operative—why, in other words, the only power capable of annihilating O has thus far been unexercised—but this is a separate question from the metaphysical account of O's persistence. Moreover, plausible stories concerning the absence of such (sufficiently) destructive factors wouldn't be all that difficult to provide. Likewise, there is the further question of why objects lack the spontaneous annihilation tendency. But why should explaining this fact be any more difficult than explaining why objects have or lack *other* tendencies? (And, to reiterate Beaudoin, having such further explanations ready to hand is not a condition on adequate metaphysical accounts of EIT.)

A second tendency-disposition account is found in Benocci (2018), who emphasizes that "endurance theorists do not need any special metaphysical principle or postulate to account for existential inertia" (2018, p. 59). Benocci appeals to dispositions, which "consist in displaying a certain kind of manifestation under a certain kind of condition or stimulus" (2018, p. 60). Benocci begins with an intuitive principle according to which the changes an object undergoes reveal the presence of a corresponding disposition of which the relevant change is a manifestation. More precisely, "if an object *a* undergoes a change *m* in the circumstance *c*, then it has the disposition to undergo a change of kind *M* in circumstances of kind *C*, with *m* being a change of the kind *M* and *c* being a circumstance of the kind *C*" (2018, p. 60). He also defines a *trivial disposition* as a disposition that manifests in all possible circumstances.

With the aforementioned principle in hand, Benocci adds another principle to the mix:

Complementarity Principle: For any object *x* and any non-trivial disposition *D* to display a manifestation of the kind *M* in (and only in) the conditions of the kind *C*, if *x* has *D* then *x* also has the disposition *D'* not to display a manifestation of the kind *M* in (and only in) the conditions other than those of the kind *C*. (2018, p. 62)

In simpler terms, any object with disposition *D* similarly has *D*'s complementary disposition. Benocci argues that this principle is both intuitively plausible and free from ontological commitments. For although the Complementarity Principle may seem to require universals or tropes (since dispositions seem to be properties of some kind), it can be cast in terms that don't quantify over dispositions *as such* but instead merely objects' being disposed in certain ways:

Complementarity Principle:* For any object *x*, if *x* is non-trivially disposed to display a manifestation of the kind *M* in (and only in) the conditions of the kind *C*, then *x* is also disposed not to display a manifestation of the kind *M* in (and only in) the conditions other than those of the kind *C*. (2018, p. 62)

From these principles, we have a recipe—so Benocci argues—for an account of EIT. For according to the Complementary Principle, any object with a disposition to destruct in (and only in) circumstances C likewise has a disposition to remain in existence in (and only in) non-C circumstances. And, according to Benocci, this disposition for an object to continue existing is “aptly called the existential inertia of that object” (2018, p. 62). All that’s left to add is that the relevant circumstances of kind C are those in which the object is subject to sufficiently destructive or annihilating factors. Benocci concludes:

[T]here is nothing spooky in attributing an existential inertia to ordinary objects. To talk about the existential inertia of an object that is enduring is not different from talking about the ‘malleability inertia’ of a piece of iron that is not undergoing a compressive stress: in both the cases we have just an object that is not manifesting a certain disposition, and which on the other hand is manifesting the complementary disposition to remain in a certain state. With this in mind, the perturbation that makes an object pass away is simply a stimulus of the kind that makes it display its destructive disposition. (2018, p. 63)

This, then, is the essence of Benocci’s strategy. Benocci’s strategy represents a *prima facie* defensible, coherent, and ontologically lightweight metaphysical account of EIT.

The third and final tendency-disposition account we’ll consider is Oderberg’s. (Note that Oderberg uses “tendency” and “disposition” interchangeably.) According to Oderberg, “things tend to continue to exist” (2014, p. 349). This tendency to persist is “so basic to a thing” that the tendency “manifest[s] not only for as long as the thing exists but *because* it exists” (*ibid.*, p. 350).

One might wonder whether this account is circular. Isn’t Oderberg committed to the claims that (i) objects enjoy a tendency to persist *because* they exist, and (ii) objects exist *because* they have a tendency to persist? Moreover, Oderberg takes the tendency to persist to be a kind of “property—one that holds for as long as the object exists and precisely because it exists” (*ibid.*). But aren’t properties “ontologically parasitic” on their bearers, in the sense that properties are *posterior to* and *dependent upon* the (ontologically) prior existence of their bearers? And if properties are posterior to the existence of their bearers, how could such properties *explain* their existence without engendering a vicious explanatory circle? We could also frame this circularity worry diachronically. If, for any property F, F posterior to its bearer O, then O’s continued possession of F merely *presupposes* O’s continued existence. But then S’s continued possession of F cannot *explain* O’s continued existence.

This is one of two general worries that any account of EIT must avoid. In particular, any account of EIT must avoid both (i) vicious circularity (i.e., *presupposing* the (ontologically prior) persistence of the concrete object(s) in question) and (ii) *relocating* the quest for an explanation of persistence (i.e., explaining the persistence of objects of type *T* by implicitly or explicitly assuming the persistence of objects of type *T**). We’ll see in many of the following subsections how (and whether) the various accounts circumvent such worries. For now, let’s consider how Oderberg replies to the circularity worry.

According to Oderberg, the charge of circularity is misguided. An object has the tendency to persist “because it exists *as a certain kind of thing*.... [A]ll concrete objects ... have it because of the kind to which they all belong, namely, *concrete object*. So concrete objects have the tendency to continue to exist because they exist as concrete objects” (*ibid*). Oderberg explains that such objects “do not exist as concrete objects because they have the tendency to continue to exist,” thus avoiding vicious circularity (*ibid*). Answering the question of why they exist as concrete objects would appeal to some “fundamental metaphysical analysis” rather than “some property or other of the object” (*ibid*).

On Oderberg’s view, while “it is logically impossible for a thing to have the tendency to continue to exist without existing in the first place,” this doesn’t entail that “its mere existence explains the tendency. So we do not have any explanatory or other circle here” (*ibid*). In short, the explanation of why concrete objects persist in existence is that they have a *tendency* to do so; and they have a tendency to do so *not* because they exist or persist, but rather because of the *kind* of things they are—they have such a tendency by their very *natures*. (There is of course the further question of why they essentially have such a tendency. But now we are asking a *separate explanatory question* from what explains their persistence. Moreover, it’s not clear why this would be any more mysterious than why objects have other tendencies or dispositions by nature.)

Oderberg’s response, though, might seem unsatisfying. For while neither the mere existence nor mere continued existence of O explains O’s tendency to continue to exist, Oderberg seems to *grant* that O’s existence is *prior* to O’s tendency. (For instance, Oderberg says O cannot have the tendency without existing *in the first place*.) And this is surely all we need to get the circularity worry up and running. For if O’s tendency to persist presupposes O’s existence, then surely the continued *possession* and *manifestation* of said tendency likewise presupposes O’s continued existence. And in that case, the tendency cannot *explain* or *account for* O’s continued existence. Consider: even though your having a phone (plausibly) doesn’t explain why you received a call from your friend today, having a phone is nevertheless *prior to* and *presupposed by* the latter. And in that case, the latter cannot *explain why* the former obtains.

But perhaps Oderberg can avoid this circularity, too. For Oderberg can grant that *at time t*, O’s tendency to persist cannot explain O’s existence *at time t*, precisely because the former presupposes the latter. *But that isn’t the proposal*. The proposal for explaining O’s existence at some non-first time *t* at which O exists is, rather, something like: (i) O existed at some time *t** *earlier* than *t*; (ii) O possessed, at *t**, the tendency to persist in existence unless subjected to sufficiently destructive factors; (iii) O has this tendency in virtue of the *kind* of thing O is (i.e., in virtue of O’s nature); and (iv) O was not subjected to sufficiently destructive factors between *t** and *t*. The explanans here is *neither* explained by *nor* presupposes the prior

obtaining of the explanandum (O's existence at t). Circularity, then, seems to be avoided after all.³

Before turning to transtemporal accounts, we want to highlight Oderberg's *motivation* for believing in objects' tendency to persist. He points out, first, that "[i]t is not as though objects cease to exist under such a variety of circumstances that we cannot, even in principle, find anything common to them" (*ibid.*, p. 351). Instead, there is little mystery about the conditions under which objects cease to exist: "They cease to exist when and only when forces act upon them" (*ibid.*). This is not some brute fact, "any more than if it were the case that all objects ceased to exist when and only when in the vicinity of objects twice their size" (*ibid.*). We need some account of why there is such commonality among ceasing to exist. According to Oderberg, this fact is explained in terms of a tendency to cease to exist, a tendency whose manifestation conditions involve "destruction by the application of forces" or causal influences (*ibid.*). This tendency to cease, moreover, "depends ontologically on the tendency to continue to exist in the absence of those forces. Nothing can cease to exist in certain conditions unless it already continues to exist prior to those conditions" (*ibid.*). Oderberg is here appealing to some version of the complementary principle adduced by Benocci.

Oderberg's argument for the tendency to persist can therefore be put as follows. We observe temporal concrete objects ceasing to exist when and only when subjected to sufficiently destructive factors or influences. But this universal phenomenon cries out for explanation, just as objects' ceasing to exist when and only when next to objects twice their size would. According to Oderberg, the best explanation for this phenomenon is that temporal objects possess some tendency to cease to exist when and only when subject to sufficiently destructive factors. But tendencies imply their complements; in other words, the possession of a tendency to cease to exist in certain conditions—"a specific disposition activated by a relatively limited kind and range of stimuli"—implies the possession of "a tendency to *continue* to exist absent those stimuli" (*ibid.*). Hence, temporal concrete objects enjoy a tendency to persist in existence in the absence of sufficiently destructive factors.⁴

What's more, tendency-disposition accounts place a restriction on what we can expect to observe that wouldn't be in place on the hypothesis that divine conservation is required to keep temporal objects in existence. On tendency-disposition accounts, we would always observe that objects cease to exist when and only when objects are subject to sufficiently destructive factors. An alternative account in

³Here's another way to think about it. Suppose that O's life begins at t^* . In that case, there are two things we need to explain: (i) O's beginning to exist at t^* and (ii) O's continuing to exist to (say) t . For (i)—that is, O's beginning to exist—whatever explains O will not be O itself. But we are interested here in explaining *persistence*, not beginning. So, let's turn to (ii). What explains the fact that O continues to exist to t ? Plausibly, it could be explained by some fact about O *at one or more times earlier than t* (in conjunction, of course, with a few other conditions—to wit, those adumbrated in the main text).

⁴Also of note is Oderberg's (2014, pp. 351–353) defense of the tendency to persist in light of radioactive decay. This objection is also addressed in Schmid (2021a, p. 204), and we'll discuss it in Sect. 7.3.1 too.

which a timeless entity conserves temporal entities in existence is *consistent* with the observation that objects cease to exist only in the presence of specific kinds of destructive factors, but such an account is *also* perfectly consistent with whole hosts of other observations—observations in which anywhere from 0 to 100% of cessations align with the presence of sufficiently destructive factors. To put it differently, the alternative timeless sustenance account does not require or entail that objects cease to exist only in the presence of specific kinds of destructive factors. For this reason, our (near) universal experience that objects *do* only cease to exist in the presence of specific kinds of destructive factors raises the epistemic probability of the tendency-disposition account vis-à-vis the timeless sustenance account and so provides evidence for the former over the latter. (We'll have more to say about this sort of argument in the next chapter.)

The inertialist, moreover, can extend Oderberg's argument: given that temporal objects do have a tendency to cease to exist only in the presence of sufficiently destructive factors, and given that, in conjunction with other conditions adumbrated earlier, this tendency *explains* the persistence of temporal concrete objects, a continuously operative sustaining cause or ground of the moment-by-moment existence of temporal concreta is explanatorily *otiose*. "Shave it off," sayeth Occam's razor and the existential inertialist.

Onward we march, then, to a second family of inertialist-friendly explanations of persistence: transtemporal accounts.

6.3 Transtemporal Accounts

Transtemporal accounts appeal to some kind of transtemporal relation(s) to explain persistence. There are many such accounts, but we'll focus in particular on Schmid (2021a) and Mackie (1974). Let's take each in turn, beginning with the former.

Here is how I (Joseph) articulate the account in Schmid (2021a):

For concrete object *O* and times t_{-1} and t (where t_{-1} is immediately temporally prior to t), the existence of *O*-at- t is explained by the conjunction of (i) the state and existence of *O*-at- t_{-1} and (ii) the absence of any sufficiently causally destructive factors acting on *O*-at- t_{-1} and through t . (p. 205)

This account is explicitly written in endurantist terms, but it can be easily rendered consistent with the relativistic and perdurantist accounts of existential inertia discussed in the previous chapter. For example, for globally hyperbolic relativistic spacetimes, times t_{-1} and t can be replaced by appropriately related Cauchy surfaces; meanwhile, instead of considering *O* at distinct times or on distinct Cauchy surfaces, we can consider proper parts of *O* located on distinct Cauchy surfaces.

The account—hereafter, "Schmid's account" or "Schmid's transtemporal account"—leaves open the precise nature of the relevant transtemporal explanatory relation, allowing the relation to be either causal or non-causal. According to Schmid's account, then, *O*'s persistence is explained by (i) the absence of

sufficiently causally destructive factors operative on O, plus (ii) transtemporal explanatory relations (causal or otherwise) obtaining between the temporally successive states of O's life (so to speak).

I (Joseph) argue in Schmid (2021a) that explanations of present things' existence in terms of past things seem not only legitimate but often indispensable. Present allelic frequencies in biological populations are explained (at least in part) in terms of past selection pressures and past reproductive behavior; discursive reasoning processes plausibly require *not only* a justificatory or reasons-based link between past consideration of the premises (on the one hand) and present acceptance of the conclusion (on the other) *but also* a causal or explanatory link between the two; and so on. In principle, there seems to be nothing debarring past things from explaining (causally or otherwise) the existence of present things.⁵

One might think that Schmid's account presupposes that for each instant of time there is an immediately temporally prior instant of time. But if time is continuous as opposed to discrete (such that for any two distinct times, there is another time between them), then, for any given instant of time, there does not exist an immediately temporally prior instant of time. By way of response, note first that even if Schmid's account works only under discrete time, it's significant if there's a workable metaphysical account of existential inertia assuming discrete time.⁶ Second, the account is not (after all) essentially tied to discrete time. If time is continuous, we can let the temporal state immediately prior to t be some suitably or arbitrarily small non-zero interval of time with t as its later-than bound. That is, if time is continuous, then we can re-define Schmid's account as follows:

⁵ Indeed, those who deny EIT—that is, those who hold that all temporal concreta are sustained or conserved in existence from without—are entirely free to recognize the legitimacy of transtemporal explanations. Consider, for instance, Alexander Pruss: "Plausibly, your existence at earlier times causes your existence at later times" (2018, p. 167). For further discussion/justification of transtemporal explanatory relations, see Schmid (2021a) and Swinburne (1994, pp. 81–90). Note, though, that transtemporal accounts do not say that *all* causation is non-simultaneous. (Indeed, they are not even wedded to viewing the relevant transtemporal explanatory relation as causal.) Final note: one objection to transtemporal accounts derives from the conjunction of presentism and the thesis that explanatory relations are existence-entailing. See Schmid (2021a) for a response to this objection.

⁶ Some recent developments that *might* favor discrete time are based on *causal finitism*, the view that every event, state, or substance has a finite causal history. (On arguments for causal finitism, see Pruss (2018), Koons (2014), Schmid (Forthcoming), and Malpass (Manuscript)). For if time were continuous, then presumably infinitely many distinct states *could* causally influence (whether directly or indirectly) a final state—e.g., the location of a particle at time t would be causally dependent upon or influenced/explained by the particle's state and location at each of infinitely many distinct previous times; or your existence at each of infinitely many distinct earlier times causally contributes (directly or indirectly) to your present existence; and so on. Pruss (2018, ch. 8) argues along different lines that while causal finitism does not automatically entail discrete time, it still provides *evidence* for it. For a different kind of argument for discrete time, see Whitrow (1980, pp. 200–205).

For temporal concrete object *O* within EIT's quantificational domain, the existence of *O*-at-*t* is explained by the following conjunction: (a) nothing positively destroys *O* at *t*, and (b) there exists a value of $\varepsilon > 0$ seconds such that for every instant of time within the interval $(t - \varepsilon, t)$, (i) *O* exists (and has such-and-such state), and (ii) there are no sufficiently destructive factors acting on *O*.⁷

The continuity or discreteness of time is something deserving much more attention in debates concerning existential inertia. Pursuing this issue in requisite depth, however, would take us too far afield given our present purpose of categorizing, developing, and sketching motivations for different metaphysical accounts.⁸ Before turning to Mackie's transtemporal account, though, we want to show how Schmid's transtemporal account avoids the vicious circularity worry.

Importantly, Schmid's transtemporal account does not merely *presuppose* that *O* persists from the previous time to the succeeding time; instead, the account provides an explanatory *means* by which such persistence obtains. *O* remains in being at the succeeding time (or on, e.g., the succeeding Cauchy surface) precisely *in virtue of* the state and existence of *O* at the prior time (or on, e.g., the prior Cauchy surface) in conjunction with the absence of sufficiently destructive factors operative. The explanans *secures* or *accounts for* (instead of presupposing the ontologically prior reality of) the explanandum (viz. the moment-by-moment existence of concrete objects, for non-first moments of their lives).

We simply see no circularity in the following explanatory schema. For the sake of simplicity, suppose that the relevant transtemporal explanatory relation is *causation* and suppose that we are considering a Newtonian or Galilean spacetime with discrete time. The explanandum is *O*'s existence at *t*. Schmid's explanans, under the aforementioned assumptions, is: (i) There are no sufficiently destructive factors operative on *O* from t_{-1} to *t* (where t_{-1} is the time immediately prior to *t*), and (ii) the state and/or existence of a temporal concrete object (or, at least, one within EIT's quantificational domain) at a given time at which the temporal concrete object exists causally produces its existence at the next time provided that no sufficiently destructive factors operate on the object at either time.

We find the explanation proffered here both non-circular and illuminating. There is nothing in the explanans that presupposes the prior reality or obtaining of the explanandum. The explanation is *illuminating* in that the explanation cites facts that remove mystery as to why the explanandum obtains. Further, the explanandum was simply derived from the explanatory facts cited.

To be sure, there might be the further question of why some of those explanatory facts *themselves* obtain. For instance, there's the question as to why reality is so

⁷In a relativistic version, we can (for example) replace each instant with a Cauchy surface.

⁸For a treatment of issues pertaining to the continuity of time, divine conservation, and explaining persistence, see Miller (2007). Miller (2007, ch. 3) criticizes the ability of transtemporal causal relations to explain persistence if time is continuous. If successful, his arguments could be applied to the present context (*mutatis mutandis*) to show that (at least some) transtemporal accounts of inertial persistence require discrete time. Space restrictions don't permit us to examine his criticism here.

constituted that the successive stages in an object's life are related by causal relations.⁹ But this is a *separate question* from why *O* exists at *t*. And, plausibly, an answer to the former question will not be difficult to find. Indeed, we don't see why explaining the fact that the successive stages of an object's life are causally related would be any more difficult than explaining why reality is so constituted as to have *any* causal relations at all or to have causal relations *other than* those relating the successive stages of an object's life. Finally, "it is not a condition on legitimate explanation that a deeper explanation for every statement in the explanans always be ready to hand, or even that it exist at all" (Beaudoin 2007, p. 89).

So much for Schmid's account; let's turn to Mackie's. Unlike Schmid, Mackie specifies that the transtemporal explanation at play is *causation*. In particular, Mackie suggests treating a physical object as "a self-maintaining process or cluster of such processes" and holds that "[t]he earlier phase of [such] a self-maintaining process surely brings about, or helps to bring about, the later phase" (1974, p. 156). According to Mackie's transtemporal account, then, earlier phases of temporal concrete object *O* cause (bring about, produce) later phases of *O*.

Mackie's account raises questions concerning the *relata* of the transtemporal explanatory relation. The *relata* for Mackie are the "phases" of an object—presumably a stage or state of the object at (speaking loosely) a single moment of the object's life. But transtemporal accounts need not share this part of Mackie's account. They could instead opt for other views of the *relata*. Here are some options, where, for the sake of simplicity, we assume a Newtonian or Galilean spacetime and that time is discrete. Letting *t* be a non-first time at which *O* exists and *t*₋₁ be the time immediately prior to *t*:

1. The *event* of *O*'s existing at *t*₋₁ causes—in the absence of (sufficiently) destructive factors—the *event* of *O*'s existing at *t*; or
2. The *state of affairs* involving *O*'s existing at *t*₋₁ causes—in the absence of (sufficiently) destructive factors—the *state of affairs* involving *O*'s existing at *t*; or
3. The *conjunctive proposition* that <*O* exists at *t*₋₁ and no sufficiently destructive factors operate on the object from *t*₋₁ to *t* > explains the *proposition* that <*O* exists at *t*>; or
4. The successive states (or phases) in the life of *O* itself could be the *relata*; and so on.

One question for causal transtemporal accounts is: *when* is the causing taking place? In response, we note that this question is ambiguous between (i) "when is the *cause* causing?" and (ii) "when is the effect *effecting* (i.e., being effected or brought about)?" The answer to the former is the immediately prior moment, while the answer to the latter is the immediately posterior moment. There is no *tertium quid*; we need not (and, we suggest, *should* not) reify the "event" of *the cause's causing the effect*. There's just the cause and the effect, the former of which is immediately temporally prior to the latter.

⁹We use "successive stages of an object's life" as neutral between endurantism and perdurantism.

But why might someone accept transtemporal accounts? We've already canvassed some reasons (e.g., appealing to past things to explain present things is often both legitimate and indispensable, and the cited *explanantia* in transtemporal accounts seem explanatorily illuminating). In Schmid (2021a), I (Joseph) offer an argument from diachronic identity. In particular, I was concerned therein with adequately accounting for the distinction between instantaneous replacement and genuine persistence. I argued that transtemporal causal relations plausibly provide necessary conditions for adequately distinguishing between a successive series of numerically distinct but qualitatively similar simulacra (on the one hand) and genuine persistence (on the other). As argued therein, relevant causal continuity among the stages of an object's life—where the later existence of the object at least partly causally or explanatorily depends on the earlier state(s) and existence of the object—is a necessary condition and partial ground of diachronic identity. But given that we already have such explanatory relations in our ontology, why not employ them to explain persistence? Why posit sustaining causes when, plausibly, *transtemporal explanatory relations themselves* can suffice to explain persistence? For purposes of space, we won't dwell further on this general line of argument. We include it here to give readers a sense of the motivations for transtemporal accounts.

Before continuing, however, we want to allay a potentially pressing objection to transtemporal accounts of EIT concerning causal simultaneity.

6.3.1 Causal Simultaneity*

6.3.1.1 Objection

Some might worry that (causal) transtemporal accounts violate the simultaneity of causation. Aristotelians and Thomists, for instance, might claim that the proximate cause of an effect occurring at *t* must act *at t*. Aquinas (1955, p. 89), following Aristotle, describes this sort of view as applied to *motion* or *change*:

The mover and the thing moved must exist simultaneously. This Aristotle proves by induction in the various species of motion. But bodies cannot be simultaneous except through continuity or contiguity. Now, since, as has been proved, all the aforementioned movers and things moved are bodies, they must constitute by continuity or contiguity a sort of single mobile. (*Summa Contra Gentiles* I, ch. 13)

What's true of *change*, they might add, is likewise true of *existence*—an object's existence at *t* cannot be caused by the object's prior existence. Instead, any such cause must be *simultaneous* (or concurrent) with its effect. If that's right, then (causal) transtemporal accounts must be mistaken. For such accounts claim that the proximate cause of an inertially persistent object O's existence at a non-first time *t* of O's life does *not* act simultaneously or concurrently with *t*.

In the subsections that follow, we respond to this causal simultaneity objection at length. What emerges from our discussion is a much-needed exploration of the relationships between transtemporal accounts, causal simultaneity, and relativity theory.

6.3.1.2 Preliminary Notes

Note first that (causal) transtemporal accounts are entirely compatible with *some* causes acting simultaneously with their effects. Transtemporal accounts only require that, in the case of persistence, efficient causes linking the phases of at least *some* objects' lives are non-simultaneous with their effects. (Or, at least, *causal* transtemporal accounts require as much. Objections from causal simultaneity are impotent against *non-causal* transtemporal accounts.) Thus, even if one could show that there are *some* (or *many*) cases of simultaneous causation, more is needed to cast doubt on (causal) transtemporal accounts.

Second, the debate over whether proximate causes precede or are simultaneous with their effects is live, and opinions vary widely. In the dialectical context at hand, our sole aim is to show that transtemporal accounts are defensible metaphysical accounts of EIT. Showing this doesn't require settling the dispute over the precise character of causation. By contrast, the objection at hand *does* require settling the dispute in favor of causal simultaneity—at least in the case of causes of persistence. This isn't an easy burden to shoulder, and the vigorous debate over the temporal character of causation makes *us*, at least, hesitant about claims to have settled the dispute.

Third, we think it's important to note a response to the causal simultaneity objection deriving from Maslen (2018). According to what calls a “commonly assumed modern picture of causation”—the “Standard Modern Picture”—(i) each member of a causal series temporally precedes subsequent members, and (ii) such members are densely ordered. Maslen argues that several prominent arguments for the simultaneity of causation fail if causal series are densely ordered. She considers arguments from Mumford, Anjum, Huemer, and Kovitz. (We'll also examine these sorts of arguments below.) We mention Maslen's case here because (i) it's relevant to the objection under consideration, and (ii) we'll discuss it in a subsequent subsection.

6.3.1.3 Orthodox Relativity and Causal Simultaneity

A more substantive response is that simultaneous causation is not obviously consistent with an orthodox understanding of relativity. Consider Aquinas's famous example of an essentially ordered series wherein a hand moves a stick, which in turn moves a stone (Aquinas 1963, VII 2.892). Since Aquinas lived long before the advent of relativistic physics, Aquinas could imagine that motion is instantaneously communicated from one end of the stick to the other so that all three members in the causal series (hand, stick, and stone) are moved at the same time.¹⁰ If all three members do move at the same time, the stick acts as a perfectly rigid body. But one consequence of relativity is that no signal can be transmitted instantaneously. And because no signal can

¹⁰ For example, Aquinas writes, “Now it is evident that, when something moves by virtue of the fact that it is itself being moved by another, then both the mover and the mobile are being moved simultaneously, just as, when the hand by its motion moves a stick, the hand and the stick are moved at one and the same time” (Aquinas 1963, VII 2.892).

be transmitted instantaneously, there are no perfectly rigid bodies. All extended bodies must be deformable as a consequence of the fact that a signal cannot be propagated from one end of the body to the other instantaneously. In fact, introductory presentations of relativity (e.g., Styer 2011, p. 107) often utilize the specific example of motion communicated through a stick or a similarly shaped object; instead of being communicated from one end to the other instantaneously, motion must be communicated through the stick as a compression wave with a finite velocity.¹¹

At this stage in our presentation, it's not yet clear whether the tension can be resolved without rejecting either the Aristotelian-Thomistic conception of an essentially ordered series (at least among physical things) or an orthodox four-dimensionalist interpretation of relativity. While Aquinas did maintain that a proximate cause must act simultaneous to the effect produced in the patient, Aquinas did admit that a cause can have temporally subsequent effects, as when the ingestion of a medicine might have a delayed effect (Wallace 1974). Thus, Aquinas might say that although the communication of the motion may be delayed from one end of the stick to the other, each proximate cause in the series instantaneously communicates motion to the next member in the series by co-occupying a boundary that progressively advances through the stick. But a more careful examination—to which we now turn—shows that the tension between simultaneous causation and relativity can be exacerbated and brought into clearer sight.

As we discussed in Sect. 5.3.2, orthodox interpretations of relativity imply that absolute simultaneity does not exist. Any point-like object *O* can be thought of as carrying its own clock; relative to any spacetime point *p* along *O*'s trajectory through spacetime, there will be a collection of spacetime points that, relative to *O*'s motion through *p*, are simultaneous with *p*; that collection of points is called *O*'s *simultaneity plane*. Other trajectories passing through *p* will identify other collections of points as simultaneous with *p*, so that there is no unique choice as to which collections of points are simultaneous with *p*. *O*'s simultaneity plane will generally be at some angle relative to the simultaneity planes picked out by other point-like objects, including other objects, if any, that are co-located with *O* at *p*. The orthodox Minkowskian interpretation of relativity claims that there is no objectively best way to carve spacetime up into simultaneity planes and, consequently, no absolute fact about which spacetime points are simultaneous with which other spacetime points.

Friends of simultaneous causation—particularly those who adopt Aristotelian-Thomistic metaphysical positions—would be right to point out that they use the term “simultaneous” differently from how the term is deployed by physicists. In light of the orthodox interpretation of relativity, physicists will say that two numerically distinct spacetime points *p*₁ and *p*₂ are simultaneous just in case *p*₁ and *p*₂ occur at numerically the same spacetime point—i.e., *p*₁ and *p*₂ are instantaneous. Friends of simultaneous causation should not be interpreted as endorsing the view that causes and effects are instantaneous. As Feser writes, “It is important to emphasize, however, that *simultaneous* does not entail *instantaneous*. An event is of course

¹¹ Similar examples are considered in Huemer and Kovitz (2003, p. 558) and Tooley (1988, pp. 207–208).

spread out through time. The point is that a cause's producing its effect is part of the same one event in which the effect is being produced, however long this event lasts" (Feser 2014, p. 162). As we've seen, for Aquinas, throughout the time that an efficient cause acts, the efficient cause is united to the patient as one continuous unit.

Consider, then, one of Mumford and Anjum's stock examples of causation: mixing sugar into water (Mumford and Anjum 2011, ch. 5). Mixing sugar into water takes place over a period of time. The contents of each instant in that period—at least according to folk ontology—are simultaneous in the sense that they occupy the same temporal period, and they occupy the same temporal period by being part of the same event. For that reason, argue proponents of causal simultaneity, simultaneous causation cannot be ruled out merely on the grounds that relativity rules out absolute instantaneity. Feser, for instance, asks whether Einstein has refuted the claim that causes and effects are (or can be) simultaneous, since relativity is often said to have ruled out absolute simultaneity. Feser answers:

No, because the cases we have been considering are precisely those in which an effect and its immediate cause are part of the *same* event rather than distinct events, and the examples we have been appealing to involve causes and effects occupying the *same* spatial location rather than separate locations. So, relativity is irrelevant. (2017, p. 63)

But it's not clear that Feser has truly answered the objection. As we've said, Aquinas did maintain that an efficient cause is united with its patient as one continuous unit throughout the time that the efficient cause acts. However, contrary to Feser's statement that the cause and effect occupy the same spatial location, Aquinas maintained that, at least in those cases wherein causes are spatially located, the cause and its patient occupy contiguous—and so *not* the same—spatial locations. In other words, the two bodies occupy *neighboring* spatial regions. Elsewhere, Aquinas indicates that numerically distinct corporeal bodies must occupy distinct locations and cannot be co-located (Aquinas 1946, qIV a3).¹² Thus, in those cases where a corporeal

¹² At least historically, various thinkers have claimed that distinct material objects must, as a matter of metaphysical necessity, occupy distinct regions; see, e.g., Gilmore (2018), Pasnau (2011, pp. 300–322), and Hankins (1970, p. 155). In fact, Pasnau describes the view that material objects are impenetrable, so that numerically distinct material objects cannot co-locate, as the consensus view among Scholastic philosophers. Howard (1997) notes that Schopenhauer, inspired by the medieval and early modern traditions, argued that spatial and temporal location are preconditions for the possibility of individuation; in turn, Einstein was influenced by Schopenhauer's views on individuation in the development of relativity, the separability principle, and his objections to quantum mechanics. Some contemporary metaphysicians have been puzzled by what, if anything, would distinguish two objects if they have the same parts and the same location, though other metaphysicians have argued that, e.g., a statue and the lump of clay composing it are numerically distinct despite having all their parts located in all the same locations (cf. Costa n.d. and Gilmore 2018). We take no position on whether co-location is metaphysically possible, other than to say that we know of nothing in current physical theory that would *prevent* at least some physical objects, such as elementary bosons, from co-locating. (The notion that elementary bosons are examples of physical objects that can co-locate was previously suggested in, e.g., Hawthorne and Uzquiano 2011.) We take no position on whether Hawthorne and Uzquiano are correct. All that we require for our argument is that, in at least *some* instances, efficient causes are not co-located with their patients and that current physical theory does not provide good reason for supposing that proximate efficient causes are *always* co-located with the patients on which they act.

body causes an effect in another body, Aquinas maintained that cause and patient are not in one and the same location. For that reason, Feser presumably means that efficient causes and their patients are located at the same spatial (or spatiotemporal) location in a *broader* sense, as when, e.g., we say that two roommates are in the same location in virtue of occupying the same apartment. But in that case, understanding what occupying the same interval of time comes to in light of relativity is far more challenging.

Aquinas is able to maintain that an efficient cause and the patient on which the efficient cause acts exist together in space because Aquinas endorsed a pre-relativistic conception of space and time on which (a) distinct absolute three-dimensional spaces exist at distinct absolute times, and (b) two numerically distinct objects can exist together simultaneously at contiguous locations in space. But according to relativistic orthodoxy, there is no absolute time or absolute simultaneity, and so there is no such thing as two objects occupying numerically two contiguous locations in absolute space at one and the same time.

Let's return to Mumford and Anjum's example of mixing sugar into water. According to Mumford and Anjum, sugar, water, and stirring are the joint causes of the sugar water solution. For Mumford and Anjum, the sugar is stirred into the water over a period of time—say, from t_1 to t_2 . They argue that the simultaneity of the cause and effect consists in the concurrence of all three components throughout the process from t_1 to t_2 . However, according to relativistic orthodoxy, no process fits that description. Once more, each of the microphysical constituents comprising the sugar and water carries that constituent's own clock, and in general no clock can be constructed that objectively synthesizes all the microphysical clocks into one absolute temporal series. And since no clock can be constructed that synthesizes all the microphysical clocks into one absolute temporal series, there is no time at which the sugar absolutely begins to be stirred into the water and no time at which the sugar absolutely finishes being stirred into the water. There is no absolute fact about *when* the process starts or *when* the process ends; on an orthodox understanding of relativity, there is no such thing as a process that occurs from t_1 to t_2 because t_1 and t_2 do not exist apart from adopting a specific reference frame and so do not have metaphysical significance. Furthermore, the water, sugar, and stirrer molecules do not occupy the same spatial (or spatiotemporal) location, at least not in the sense that is relevant for relativity. As we've said, on the Aristotelian-Thomistic account of efficient causation that Feser and other friends of persistence arguments tend to endorse, an efficient cause is (at least typically) a distinct object from the patient on which the efficient cause acts. And while perhaps some particles (e.g., elementary bosons) can jointly occupy the same spatiotemporal location, there are generally interactions or other phenomena that prevent co-location at numerically one spacetime point. The sugar, water, and stirrer molecules may all participate in one event, but they do not occupy numerically one spacetime point; instead, they are strewn throughout spacetime.

Suppose that we pick out one sugar molecule *S*, which we can approximate as a point-like object. Relative to *S*, we might pick out a simultaneity plane that we could label t_{SI} , which is the hyperplane on which, relative to *S*, stirring begins. We can also pick out a water molecule *W* moving at high velocity relative to *S*. Relative to *W*, there will again be some simultaneity plane t_{WI} on which stirring begins relative to *W*. Since t_{SI} and t_{WI} are at some angle relative to one another, there will be an infinitude of points within the portion of t_{SI} overlapping the spacetime region occupied by the water and sugar that do not exist in t_{WI} . For example, supposing a model of perdurance on which objects have temporal parts on all of the space-like surfaces at which they exist, *S* and *W* will disagree about which temporal parts of the sugar, water, and stirrer contraption exist when stirring commences. Moreover, since the temporal distance between the two simultaneity planes increases with distance, some faraway creature might live out its entire life within the spacetime region between t_{SI} and t_{WI} , so that the creature's birth occurs on t_{SI} while its death occurs on t_{WI} . The fact that a distant creature can live out its entire life in the region of spacetime between the two simultaneity planes illustrates how preposterous taking the two simultaneity planes as numerically one time would be. Since there are at least as many simultaneity planes as there are water, sugar, and stirrer molecules moving in relative motion to one another, this example can be grossly (though, perhaps, deliciously) multiplied.¹³

One might try to rescue Mumford and Anjum's account while retaining an orthodox interpretation of relativity by assuming that spacetime is globally hyperbolic and then defining concurrence in terms of coexistence on the appropriate Cauchy surfaces. But we have trouble seeing how this will ultimately work out for another reason. Recall again that, for Aristotelian-Thomists, efficient causes and their patients are generally taken to be distinct objects and that distinct material objects, insofar as they occupy spatial (or spatiotemporal) points or regions, do not generally

¹³A similar objection besets the example provided by Huemer and Kovitz (2003). Huemer and Kovitz consider how the collision of two balls is analyzed in pre-relativistic classical mechanics. When the balls collide, both balls exert equal and opposite forces on each other. The balls deform and the forces reach a max, after which the balls return to their original shapes, the forces go to zero, and the balls move off in opposite directions. During the period in which the balls are deforming and the two balls are exerting equal and opposite forces on each other, there is no time delay between one ball pressing up against the other and the other undergoing an acceleration and a deformation. In other words, each ball acts on the other simultaneously and throughout the same time period—or so the analysis goes within the context of pre-relativistic classical mechanics. Notice, though, that this analysis depends on the view that the two balls can be thought of as occupying contiguous regions in absolute three-dimensional space. Set aside the argument provided by, e.g., Ingthorsson (2007) that Huemer and Kovitz have correctly interpreted the metaphysical implications of the pre-relativistic classical analysis. *Pace* Ingthorsson (2007, pp. 141–142), the relativistic analysis has distinct metaphysical implications from the pre-relativistic classical analysis. In the relativistic analysis of the collision, because there is no absolute simultaneity, there is no absolute or objective way of carving spacetime up into three-dimensional slices; for that reason, the relativistic analysis will simply not involve the two balls residing at contiguous regions in absolute three-dimensional space. Instead, each microscopic part *P* of ball *A* must receive a signal from some microscopic part of ball *B* that originates from *P*'s past light cone.

occupy numerically one spatial (or spatiotemporal) point or region; instead, distinct material objects generally occupy distinct and non-overlapping spacetime regions. In prototypical cases of two supposedly numerically distinct objects occupying the same spatial (or spatiotemporal) point or region—e.g., a statue and the lump of clay composing it—most metaphysicians will be tempted to say that one cannot be the efficient cause of the other.

6.3.1.4 Relativistic Alternatives to the Rescue?

So far, we've assumed the orthodox interpretation of relativity. In light of the above tensions between relativity and Aristotelian-Thomistic metaphysics, Aristotelian-Thomists might try to resolve the tension by adopting an anti-realist interpretation of orthodox relativity, perhaps together with an empirically indistinguishable alternative theory.¹⁴

But whatever conclusions the Aristotelian-Thomist comes to with respect to the metaphysical interpretation of relativity, they should at least grant that relativity is empirically adequate. Anyone who grants that relativity is empirically adequate must grant that at least all of our observations are consistent with relativity. While we can imagine cases where either an efficient cause, the associated patient, or the effect produced in the patient are unobservable, the Aristotelian-Thomist should also grant that there are at least *some* instances in which we observe both an efficient cause, the associated patient, and the effect produced in the patient. If the Aristotelian-Thomist does not grant at least that much, then there will be no observed instances that confirm their account of causation. Furthermore, suppose that the Aristotelian-Thomist adopts a view according to which, contrary to relativistic orthodoxy, there is a preferred reference frame *F*. In that case, *F* picks out a temporal sequence—perhaps a sequence of Cauchy surfaces, each of which can be identified with a value of the absolute time—and two objects *A* and *B* can exist at contiguous locations on one and the same Cauchy surface. If *A* is observed to produce an effect in *B*, then the empirical adequacy of relativity will have been violated. Why?

Well, since relativity forbids faster than light signaling, relativity also forbids an effect whose influence spreads faster than light.¹⁵ Hence, the empirical adequacy of relativity demands that no signal can be observed to propagate between two numerically distinct space-like related points. The points on a Cauchy surface are space-like related. When an efficient cause makes an observable difference to its patient, a

¹⁴Note, though, that endorsing an alternative interpretation would only (at best) *license* one to think that some causes could be simultaneous with their effects—the reinstatement of absolute time would not *cast doubt* on transtemporal accounts. Such accounts, as we've emphasized, are perfectly compatible with some causes being simultaneous with their effects. Moreover, alternatives to relativity remain deeply controversial. So long as relativistic orthodoxy remains a live option, the possibility that causes do not concur with their effects remains a live option.

¹⁵Evan Fales (2010, p. 50) provides a nice discussion—which we heartily recommend—of the constraints imposed by relativity on observable causal relationships.

signal is effectively transmitted from the efficient cause to the patient; for example, if the efficient cause made an observable difference to its patient, then—by observing the difference made in the patient—we would receive at least one bit of information (to wit, whether the efficient cause acted or not). Foregoing the possibility of retrocausation and the possibility that all of the efficient causes that might produce a change in a given patient are timeless, there are two possibilities: either efficient causes act in their effect's past light cone or else efficient causes are co-located with their effects. As we've discussed, in Aristotelian-Thomistic accounts of causation, a proximate cause and the associated patient are typically distinct objects and distinct objects are not generally co-located; moreover, as we argue in this section, physics fails to provide a good reason for thinking that proximate causes are ever co-located with their effects. Thus, insofar as they endorse the empirical adequacy of relativity and the observability of at least some causal interactions, Aristotelian-Thomists should deny that the proximate cause of a change in a patient must always exist on the same Cauchy surface as the patient. Though there may be theories that are empirically indistinguishable from relativity that reinstate absolute time, there is no good reason (as far as we can see) for thinking that they reinstate the view that all efficient causes must be simultaneous with their effects.

The point about empirical adequacy can be made stronger by observing the features of the mathematical apparatus that appear in our contemporary physical theories.¹⁶ In relativistic physics, the initial value problem is well-posed only in globally hyperbolic spacetimes. (See Wald 1984, ch. 10.) Globally hyperbolic spacetimes can be foliated into Cauchy surfaces. The values of the electromagnetic field (or any other observable, physical parameter) at each point in a subregion *S* of a Cauchy surface will completely determine the corresponding values in the domain of dependence of *S*, that is, the intersection of the light cones of the points in *S*. There is no similar relationship between the values of the electromagnetic field in *S* and regions space-like related to *S*.¹⁷ This fact about relativistic spacetimes strictly entails a set of conditions on the signals that can be sent from or received at any given spacetime point and hence entails a corresponding constraint imposed by empirical adequacy.

¹⁶Thanks to Sean Carroll for helping us formulate this argument.

¹⁷A related condition—the *micro-causality condition*—arises within quantum field theory. According to the micro-causality condition, operators at space-like related points must commute (Teller 1997, pp. 83–84). Operators are mathematical objects that appear in quantum mechanics. There are a specific set of operators—Hermitian operators—that correspond to observable quantities. When two operators fail to commute, the corresponding quantities cannot be measured together. For example, the fact that position and momentum fail to commute results in the Heisenberg uncertainty principle, which states that position measurements cannot be made more precise without increasing a corresponding uncertainty in momentum measurements. That is, measuring the position of a particle *interferes with* one's ability to measure the momentum of that particle. The micro-causality condition results from the supposition that measurements made at space-like separated points cannot interfere with each other. If two numerically distinct entities could be absolutely simultaneous, there would be no reason to expect that assuming the micro-causality condition would result in empirically successful theories. Thus, the fact that assuming the micro-causality condition *does* result in empirically successful theories provides at least some evidence that numerically distinct entities cannot be absolutely simultaneous with each other.

Furthermore, even if one does not endorse a manipulationist/interventionist analysis of causation, one should think that our everyday experience of causal interactions largely originates from the kinds of interventions or manipulations we can make of objects in our immediate environment.¹⁸ The possibility of meaningfully manipulating objects within our immediate environment depends upon the separability conditions imposed by the mathematics of relativistic physics (or something closely similar). According to our ordinary experience, we can specify the value of a parameter in a localized spacetime region and manipulate that value without worrying about values at space-like separation but *not* without worrying about consequences for the future. And while we've set aside (up to now) Maslen's (2018) Standard Modern Picture of causation on which causal series are densely ordered, relativistic physics suggests a specific version of the Standard Modern Picture. Since the value of a physical parameter at a given point in a relativistic spacetime is strictly entailed by the contents of that point's past light cone, relativistic physics provides us with *prima facie* reason to think that, insofar as causal relations exist in relativistic spacetimes, they exist between that point and its past light cone. If so, the causal series that produces the state of affairs at a given spacetime point should be thought of as the densely ordered sequence to the past of that point.¹⁹

In sum, let *E* be the set of events involving an efficient cause and its patient, where the cause and patient are numerically distinct material objects. Aristotelian-Thomists generally endorse three principles: (i) there is at least one member of *E*, (ii) no two numerically distinct material objects can occupy one and the same location in space at one and the same time, and (iii) efficient causes act simultaneously with the effect they produce in their patient. Crucially, (i)-(iii) are jointly incompatible with the conjunction of (iv) and (v): (iv) relativity is empirically adequate, and (v) for at least one member of *E*, we can observe the proximate efficient cause, the patient, as well as the effect produced in the patient. Since the Aristotelian-Thomist ought to affirm (iv) and (v), the Aristotelian-Thomist must reject at least one of (i)-(iii). We submit that rejecting (iii) does the least violence to Aristotelian-Thomistic metaphysics, and hence we suggest that the Aristotelian-Thomist affirm that proximate efficient causes can be non-simultaneous with their effects.

¹⁸Tim Maudlin has suggested that causal relationships can be evaluated in relativistic spacetimes in terms of counterfactual dependence between Cauchy surfaces. And if that were so, we might have another argument for the conclusion that there are causal dependence relations along time-like directions but not along space-like directions. However, the evaluation of counterfactuals in relativistic spacetimes turns out to be both non-trivial and controversial—cf. Jaramillo and Lam (2021), Vassallo (2020), and Curiel (Manuscript).

¹⁹In fact, this version of the Standard Modern Picture is a friendly context for inertial persistence. What should friends of causal transtemporal accounts say causes the existence of *O* at some time *t* along *O*'s worldline? Supposing that time is continuous (which, of course, inertialists need not suppose), the densely ordered set of points in *O*'s worldline temporally prior to *t*, together with the absence of sufficiently destructive factors, could causally explain *O*'s existence at *t*.

6.3.1.5 Electromagnetic Interactions to the Rescue?

Recall the traditional Aristotelian-Thomistic commitment, (ii), from the end of the previous subsection: no two numerically distinct material objects can occupy one and the same location in space at one and the same time. Importantly, some friends of simultaneous causation have argued that contemporary physics provides us reason to think (ii) is false. In that case, perhaps the Aristotelian-Thomist can reject (ii) instead of allowing transtemporal proximate causation.

Consider that the interactions between Mumford and Anjum's water and sugar molecules can ultimately be understood in terms of the interactions between electric charges and that such interactions are ultimately mediated by photons. Perhaps influenced by physics popularizations, philosophers outside philosophy of physics often imagine that when momentum is exchanged between two electrons, one electron transmits a photon (carrying the momentum) while the other electron absorbs that photon (thereby receiving the momentum). According to the story that philosophers receive from physics popularizations, when an electron absorbs a photon, the electron and photon coincide at a single spacetime point. When William Lane Craig, for instance, was challenged to defend the notion that some causes are simultaneous with their effects, Craig argued that since the electron and the photon occupy numerically one spacetime point, the electron and the photon—and so the proximate cause and its patient—come to be instantaneous by co-occurring at the same spacetime point:

I can clarify my point that even remote causation involves simultaneous causation by stating that the remote cause produces its effect through the final mediation of a simultaneous cause. In physics, such mediation is through contact forces, i.e., forces which are such that the effect is not produced until the mediating photon is actually absorbed by the patient entity.... [T]he assertion that an upper bound to velocity precludes simultaneous causation is thereby seen to be fatuous (Craig 1993a, b; see also Craig 1997, p. 246).

If Craig is right, perhaps physics vindicates simultaneous causation by showing that proximate causes spatiotemporally coincide with their effects.

Alas, we have three replies to this response on behalf of the causal simultaneity objection.

6.3.1.6 Electromagnetic Interactions: Reply #1

First, in the dialectical context of transtemporal accounts of EIT, we should note that this response does not show that *all* causes must be simultaneous with their effects. Perhaps some causes produce their effects *without* contact forces or mediating photons. (For instance, at least for theists, *God* doesn't produce effects by contact forces or mediating photons.) Thus, the response could only show, at best, that *some* causes are or must be simultaneous with their effects. But the latter is perfectly compatible with causal transtemporal accounts. More importantly, such accounts hold precisely that *some* causation—causation linking the phases of objects' lives over

time—occurs without photon mediation or contact forces. It is not by dint of photon mediation or contact forces that earlier phases of an object's life cause later phases thereof. Thus, we should note that the response at hand does not address transtemporal accounts. Alas, the response still challenges our *positive* argument from Sect. 6.3.1.4, so we should examine the response on its own merits.

6.3.1.7 Electromagnetic Interactions: Reply #2

Here's our second reply to the response from electromagnetic interactions. When physics popularizers discuss the literal exchange of a photon by two electrons, they are offering a literal interpretation of a Feynman diagram. Momentarily, we will explain how we ought to interpret Feynman diagrams and argue against a literal interpretation thereof. For now, however, let's play along with Craig and consider the possibility that Feynman diagrams ought to be read literally.

In Craig's interpretation of the exchange of a photon by two electrons, an electron spatiotemporally coincides with a photon. Moreover, for Craig, we can think of the photon as existing throughout a clopen interval $(t - \varepsilon, t]$ (for some value of $\varepsilon > 0$ seconds), where the photon and electron spatiotemporally coincide at time t . But why should we interpret photon exchange as involving the photon and the electron spatiotemporally coinciding? Consider instead the possibility that the photon exists during the open interval $(t - \varepsilon, t)$; instead of the photon and electron spatiotemporally coinciding, the photon no longer exists at the time when the photon and electron would have coincided. In that case, the photon exists only at instants prior to the instant when the photon is absorbed; to put the point another way, the photon's trajectory might be a clopen *or* open interval. In that case, even on the literal interpretation of Feynman diagrams, there seems to be no non-question-begging reason to suppose that the photon and electron coincide at numerically one point. As we will see when discussing Feynman diagrams below, no presently known physics can tell us what happens at distances sufficiently close to the electron, so that, supposing we should endorse a literal interpretation of Feynman diagrams, no known physics can decide between Craig's view, on which the photon and electron coincide, and our proposed alternative, on which the photon exists strictly prior to the time at which an effect is produced in the electron.

However, there is a view suggested by a portion of Aristotelian metaphysics that Craig accepts. Aristotle denied that lines or line segments—such as the photon's trajectory—are composed of points (*Physics*, Bk. VI). On Aristotle's view, points enjoy no more than an ideal existence as the limits of linear continua; in the case of the photon in the literal interpretation of Feynman diagrams, only the photon's whole trajectory, and not the purely ideal end-points, enjoys mind-independent

existence.²⁰ Thus, Aristotle's metaphysics suggests that, if time (or spacetime) is a continuum, then we should think of two intervals—the cause-interval and the effect-interval—where, since points are not parts of continua, the two intervals can “touch” without sharing a proper part.²¹

Here, we need to be careful so that we are not confused by the twenty-first century mathematician's conception of continua on which continua *do* have points as proper parts. In the mathematician's continuum, one interval cannot touch another interval without there being a point at the boundaries of the two intervals that the intervals either share or fail to share. In contrast, on the Aristotelian conception, points are not proper parts of lines or line segments, so that two intervals can neither share nor fail to share a point as a common proper part; there simply *are* no points that the two intervals can either have or fail to have. Because the points of Aristotelian continua are not construed as proper parts of lines or line segments (White 1992, pp. 199–201), there is no distinction to be made between open, closed, or clopen intervals (White 1992, pp. 20, 184). The same is true on current attempts to render Aristotle's conception logically and mathematically rigorous (e.g., Hellman and Shapiro (2012, 2013), Linnebo et al. (2016), Shapiro and Hellman (2017)). Likewise, as Michael White (1992, pp. 47, 86–95) notes, Aristotle denied that either motions or temporal intervals can be subdivided into real instants or “nows” as proper parts; all the proper parts of a motion or temporal interval have finite duration. Thus, since Craig endorses the Aristotelian conception of continua,²² Craig should not say that there is numerically one point—an instant—where the electron and photon coincide or that either the photon's trajectory or the subsequent portion of the electron's trajectory are open, closed, or clopen. On the view that temporal continua are not composed of points (or instants), the photon's trajectory and the subsequent portion of the electron's trajectory may touch one another without overlapping, without a spatiotemporal gap in between, and without an instant where the cause and the effect are simultaneous (or instantaneous) with each other.

One might object that, for Aristotle, two objects are contiguous when their extremities are in the same place; that two objects are touching when their edges are together; and that two objects are successive when there is nothing between the two objects (Aristotle, *Physics* VI.1; White 1992, p. 23, 57). Thus, even though Aristotle would not say that either trajectory is composed of points, Aristotle might have argued that since the photon's trajectory intersects the electron's trajectory, the two trajectories are contiguous, touching, and successive; thus, at their intersection, the

²⁰ Aristotle does sometimes discuss points as the result of splitting a line or line segment. But, on Aristotle's account of continua, splitting a line or line segment into part A and part B introduces two points: one is the end point of A, and the other is the end point of B. If this analysis is accepted, then we can again provide an Aristotelian interpretation of the literal reading of the Feynman diagram, wherein the end point of the photon's trajectory is a part of the photon's trajectory and is distinct from the turning point in the electron's trajectory.

²¹ This view can be seen as Maslen's (2018, p. 4) “Contiguous Extended Picture” modified for a pointless ontology.

²² See Craig (1993a, b, p. 260; 2000, pp. 179–180) and Craig and Sinclair (2009, pp. 112–113).

photon and electron share a common place. Nonetheless, following Aristotle's view that line segments are metaphysically prior to the subdivisions that we can potentially make of them, the whole of the photon's trajectory is causally prior to the successive portion of the electron's trajectory of which the photon is at least a partial cause. Thus, once more, the cause precedes the effect.²³

Onward we march to our third reply to the response from electromagnetic interactions.

6.3.1.8 Electromagnetic Interactions: Reply #3

As we've said, Craig's response from electromagnetic interactions relies on a literal interpretation of Feynman diagrams. But there are good reasons to reject a literal interpretation of Feynman diagrams. Feynman diagrams arise as a heuristic tool in scattering matrix (S-matrix) calculations. From a practical perspective, particle physics experiments involve the input of some collection of particles into a state of affairs and the subsequent observation of the particles that exit that state of affairs. *Quantum field theory* is the name for the family of contemporary physical theories that describe particles and their interactions. The quantum field theory that describes the interaction between two electrons is called *quantum electrodynamics*. The objects fundamental to quantum field theories are *fields*. In classical physics, a field is understood as an assignment of some property to every spacetime point. For example, meteorologists describe the Earth's atmosphere in terms of a distribution of air velocities, i.e., the velocity field, throughout the spatiotemporal region occupied by the atmosphere. The velocity field is not fundamental and should be understood in terms of an underlying atmospheric medium. But in the case of the classical electromagnetic field, there is no underlying medium; instead, every spacetime point is assigned a corresponding electric and magnetic field vector as a primitive property of that spacetime point.

In quantum mechanics, any state of a physical system has an associated amplitude. The square modulus of the amplitude is the probability for the system to be

²³ A similar conclusion might follow by considering Aristotle's solution to Zeno's dichotomy paradox. According to Zeno's dichotomy paradox, an arrow must traverse half a motion before a whole motion, a quarter before a half, an eighth before the quarter, etc. On Aristotle's view, a whole motion is in some way more real than any of the parts, so that the arrow does not need to traverse the half, etc., before the whole. Set aside Aristotle's view that motions are individuated by periods of rest (Cohoe 2018; White 1992, pp. 57–62, 104–106, 168–173); photons are never at rest, from any reference frame, and so their motions cannot be individuated in the way that Aristotle appears to prescribe. There is another obvious principle for individuating the whole of a motion: the photon's whole motion occurs during the whole of the photon's lifetime. If the whole of the photon's motion should be understood as having more reality than any proper part of the motion, as Aristotle suggests, then we should consider the whole of the photon's motion as a unit instead of considering proper parts of the photon's motion. The whole of the photon's motion is temporally prior to the portion of the electron's motion of which the photon is a partial cause. Thus, applying Aristotle's account of motion may also suggest that the cause precedes the effect.

found in the corresponding state. Consequently, in order to calculate the probability of observing a system in a specific state, one first calculates the amplitude associated with that state. In quantum field theory, we are interested in the state of some field at a given spacetime point. The quantum field is a physical system and, like any other physical system described by quantum mechanics, there is an amplitude associated with every state of the field; in particular, there is an amplitude associated with each possible state of a given field at any given point. In quantum field theory, a given field can have an excited state at a given spacetime point; an excited state of a field, localized to a spacetime point (or at least a small region), is what we call a *particle*. For example, an excited state of the electron field is what we call an electron.

In a particle physics experiment, we might shoot two electrons at each other and then observe what results from their interaction. In that case, we have a known input (an electron field with two field excitations) and we observe some specific output (e.g., perhaps two tracks in a cloud chamber that we interpret as electrons). In order to compare our experimental results against our theoretical apparatus, we need to use our theoretical apparatus to calculate the probability of observing some specific output given some specific input. Calculating the probability of a specific output involves calculating the amplitude of each possible output. An S-matrix calculation yields the amplitudes for each member of a collection of possible out-going states given an in-going state.²⁴ The S-matrix calculation can be performed in terms of a power series expansion in the coupling constant; in the interaction of two electrons, the coupling constant is related to the charge of an electron. Each of the terms in the power series expansion can be represented with a Feynman diagram, so that the entire sum can be (perhaps metaphorically) thought of as the sum of the corresponding Feynman diagrams. Each of the successive terms in the power series is represented by an increasingly complex Feynman diagram—whereas the first order term is represented by a diagram where a single photon is emitted by electron A and then absorbed by electron B, a higher order term includes A emitting a photon, that photon transforming into an electron-positron pair, the electron-positron pair annihilating to produce another photon, and that photon being absorbed by B. Arbitrarily higher order terms are represented by arbitrarily complex Feynman diagrams; in principle, one needs to include every possible intermediate state of affairs between the in-going and out-going states. All of the diagrams contribute to the sum, so we cannot identify one diagram as the diagram that represents what “truly” happens; in some sense, at least according to a naive realist interpretation of quantum field theory, the *entire sum* is what truly happens.

In the Feynman diagram that illustrates the absorption of a photon by an electron, the point where the electron and photon coincide is called a *vertex*. The view that two electrons interact via the exchange of a photon, so that the electron and the photon coincide at a vertex, arises from taking the associated Feynman diagram literally. While many philosophers outside of philosophy of physics may be tempted to interpret Feynman diagrams literally, they should instead be understood as merely a useful heuristic tool.

²⁴In principle, one could instead perform the calculation in reverse—i.e., given some out-going state, one can compute the amplitudes for each possible in-going state.

For that reason, one should exercise great caution in delivering verdicts about metaphysics on their basis. As Oliver Passon describes the view of Feynman diagrams popular among philosophers of physics, Feynman diagrams “visualize *formulae* and not physical *processes*” (2019, p. 1).²⁵ And as Paul Teller notes, the literal interpretation of Feynman diagrams is “misleading in the extreme” (Teller 1997, p. 138).

As Teller notes, the strongest argument against the literal interpretation of Feynman diagrams originates in the observation that each Feynman diagram represents a term in a sum, where the *entire sum* is used to compute the amplitude of each output state. Teller draws a useful distinction between mereological parts and analytical parts. Ordinary objects, at least as conceived in our folk ontology, can be spatially decomposed into distinct parts; for example, a chair can be decomposed into the seat, legs, and backrest. The seat, legs, and backrest are the chair’s mereological parts. Mereological parts satisfy *transitivity*: if A is a mereological part of B, and B is a mereological part of C, then A is a mereological part of C. For example, the bottom half of a chair leg is not only a part of the leg but is also a part of the chair (Teller 1997, p. 140). Mereological parts are also spatially located within the wholes they compose; for example, the leg of a chair is located within the space occupied by the chair. Call this the *part-in-the-whole principle*.

Analytic parts satisfy neither transitivity nor the part-in-the-whole principle. In order to motivate the notion of an analytical part, consider one of Teller’s examples: a waveform on a one-dimensional classical string (Teller 1997, p. 141). All waveforms can be written as an infinite sum of sines and cosines; the expression of a waveform as an infinite sum of sines and cosines is called the waveform’s *Fourier decomposition*, and the series of sines and cosines is called the *Fourier series*. Thus, our waveform on a one-dimensional classical string has a corresponding Fourier decomposition. Now consider one of the terms in the string’s Fourier decomposition. The string’s motion has that term as an analytical part, but not as a mereological part. The term represents how the string would have moved if energy were only provided to a single frequency, but, generically, energy is provided to some *distribution* of frequencies, and the string’s *actual* motion is represented not by a *single* term in the Fourier series but instead by an arbitrarily large (generally infinite) series of terms. If we look for any specific term by physically examining the string—say, with a microscope—we will never find that specific term; doing so is to commit a category error. Any process described by quantum field theory (e.g., the interaction of two electrons) is described by the full power series expansion utilized in the corresponding S-matrix calculation. Just as we shouldn’t think of the individual terms in the Fourier series describing the string’s motion as mereological parts of the string’s motion—and so shouldn’t think that they have physical reality—so, too, we shouldn’t think that the Feynman diagrams representing the terms in the series describing the interaction of two electrons have their own physical reality.

²⁵ See Passon’s paper and the references therein for additional arguments against the naive literal reading of Feynman diagrams. See also Friebe et al. (2018, pp. 241–242).

The fact that analytical parts do not satisfy transitivity or the part-in-the-whole principle has an important consequence with respect to the trajectory of an object through spacetime. Suppose, for example, that *O* is a spatially extended, composite, and perduring object in a four-dimensional Newtonian or Galilean spacetime. Since *O* is composite and spatially extended, *O* has at least two spatially extended and non-overlapping mereological proper parts, *L* and *R*. Since *O* perdures in a four-dimensional spacetime, *O* has a corresponding spacetime worm. *L* and *R* must also perdure and have corresponding spacetime worms. In the simplest case, where *O* does not lose or gain parts over time, the spacetime worm of every non-overlapping mereological proper part of *O* is a mereological proper part of *O*'s spacetime worm, so that *O*'s spacetime worm has *L* and *R*'s spacetime worms as mereological proper parts. A similar consequence does not follow for analytical parts. In the case of analytical parts, Teller considers two families of cases (Teller 1997, p. 141). In the first family, the notion of a spacetime trajectory is inapplicable to the analytical parts—e.g., in the decomposition of a force vector into component forces, the individual component forces do not have spacetime trajectories. In the second family, spacetime trajectories can be ascribed to the analytical parts. Consider once more the classical description of a wave on a one-dimensional string. Recall that each term in the corresponding Fourier series represents what the string's motion would have been had energy been provided to only one frequency; generically, energy will be provided to some distribution of frequencies, so that the individual terms in the Fourier decomposition, as opposed to the sum of the terms, do not describe the string's actual motion. The terms represent a collection of counterfactual, non-actual, and mutually incompatible states of affairs. Thus, in the case of the string, there is generally nothing in the actual world that executes the spacetime trajectory associated with a single term in the Fourier series describing the string's motion.

Supposing that we had a God's eye view and could peer into what happens between the in-coming and out-going states in a particle physics experiment, there is no reason to think that we would "see" the exchange of a photon by two electrons. To be fair, we're not entirely sure what one *would* see—to answer that question, one would need to take up a series of difficult and currently unresolved interpretational issues in the foundations of quantum field theory—but there's at least no reason to expect to see a process resembling a specific Feynman diagram.

There is, however, reason to suspect that Teller's argument is too quick. To see why, return to the Fourier decomposition of the waveform on a one-dimensional, classical string. As Teller rightly points out, we would be disappointed if we looked for the physical manifestation of one of the individual terms from the Fourier decomposition. Nonetheless, consider an important necessary condition for the convergence of an infinite series, namely, that the absolute value of the partial sums have an upper bound.²⁶ The partial sum of a series is the sum after a finite number

²⁶ We need to include the absolute value because a series can diverge by the partial sums racing off to negative infinity. If the partial sums race off to negative infinity, then the series can have a finite upper bound even though the series diverges. Also, the condition that the absolute value of the partial sums have an upper bound is not a sufficient condition for convergence because the partial sums of some alternating series have no upper bound and yet do not converge.

of terms. In the case of the infinite sum $1 + 1 + 1 + 1 + \dots$, the corresponding sequence of partial sums is given by 1, 2, 3, etc., since each partial sum is generated by adding 1 to the previous partial sum. $1 + 1 + 1 + 1 + \dots$ does not converge because there is no upper bound to the corresponding sequence of partial sums. In contrast, the sequence of partial sums of $1 + 1/4 + 1/9 + 1/16 + \dots$ has an upper bound—namely, $\pi^2/6$ —and the series converges. One way to have a finite upper bound on the absolute value of the partial sums involves having terms that monotonically decrease.²⁷

One way for the terms in a series to monotonically decrease in value involves the first term in the series dominating over all of the subsequent terms. If the first term in the series dominates in such a manner, then the series is well-approximated by the first term. Thus, a string's motion might *look* like the first term in its Fourier decomposition without being exactly represented by that term. In that case, while we wouldn't be able to literally find a motion identical to the first term, we might find a motion that was well-approximated by the first term. Recall that the S-matrix calculation that is used to describe the interaction between two electrons utilizes a power series expansion in the coupling constant. Since the coupling constant has a small value, the first term in the expansion dominates the entire sum, so that, at least in some sense, the interaction might be well-approximated by the first Feynman diagram, which represents the exchange of a single photon. Would this allow friends of simultaneous causation to say that there is some spacetime point where a photon and an electron exactly coincide?

The interaction of two electrons is described by a specific quantum field theory: quantum electrodynamics. Like many other quantum field theories, quantum electrodynamics includes calculations in which one integrates over all possible energies (Teller 1997, pp. 164–168; also see Zee 2003, ch. III.1). Integrating over all possible energies often produces infinite results, which physicists usually regard as nonsensical. Nonetheless, the integrations producing seemingly nonsensical answers typically appear in combination with other quantities. For example, the observed mass m_r can be expressed as a sum of the so-called “bare mass” m_0 and a term that results from self-interaction, i.e., the electron's own interaction with the electron field. That is,

$$m_r = m_0 - \int_0^\infty g(k) dk \quad (6.1)$$

The second term, $\int_0^\infty g(k) dk$, is the term resulting from the electron's self-interaction; the self-interaction results in a logarithmic divergence. Taken literally, Eq. 6.1

²⁷ One can compare this statement against the definition of the convergence of a series from real analysis. Suppose that S_n is a partial sum for the series S . S converges to T just in case, for any $a > 0$, there exists an M such that, for any $n > M$, $|S_n - T| < a$. If the terms in an infinite series are positive and decrease sufficiently rapidly for increasing n , then the series will converge.

tells us that the observed mass is the difference between two infinite quantities. But how can we make sense of a difference in two infinite quantities resulting in a finite quantity? Rigorously, we can think of the self-interaction term as $\lim_{L \rightarrow \infty} \int_L^0 g(k) dk$, so that we can think of m_r as

$$m_r = \lim_{L \rightarrow \infty} \left(m_0 - \int_0^L g(k) dk \right) \quad (6.2)$$

The trick now is to realize that we should think of Eq. 6.2 in terms of a sequence of approximations indexed by increasing values of L . At each stage of our sequence of approximations, we can think of L as a finite cut-off that prevents our having to deal with infinite quantities. So long as L is finite, the self-interaction term will have a finite and therefore physically sensible value; at each stage in the sequence of approximations, we can enforce the statement that the difference between the bare mass and the self-interaction term is the mass observed experimentally.

Since elementary quantum mechanics introduces a correspondence between energy and length scale, a finite cut-off scale in the energy corresponds to a cut-off in the length scale. For example, suppose that we want to probe an object by reflecting laser light off it. We will not be able to discern any of the object's features if the wavelength of the laser light is larger than the object we are probing.²⁸ But the energy of a photon is a function of the photon's frequency and, thus, a function of the photon's wavelength. Our sequence of approximations is a sequence in which the cut-off L is made to increase indefinitely while the difference in the two terms—the observed mass—is held fixed by the experimentally observed result. There are independent reasons for thinking that there is some length scale on which our approximations begin to produce nonsensical answers; for example, we do not yet have a successful quantum gravity theory, and on some length scale we'll need to take quantum gravity into account. This is good news for practicing particle physicists, because they do not actually have to think of the observed mass as the difference between two infinite quantities. We don't know the value of L for which our sequence of approximations stops working, and neither do we know what terms we should include in our expression for the observed mass that results from physics at currently inaccessible energies. Nonetheless, physicists make the assumption that we can understand physics at accessible energies *without* having to understand physics at arbitrarily high energies; one of the desiderata of a good quantum field theory is precisely that the theory can be rendered independent of whatever cut-off we choose. And since we can only experimentally measure the effective mass m_r , we have effectively lumped together both the bare mass and the self-interaction and thereby masked over our ignorance.

²⁸For example, this is why optical microscopes cannot be used to see single atoms. Atoms are smaller than visible light and are therefore invisible to optical microscopes. Nonetheless, one can produce electrons with a de Broglie wavelength smaller than the radius of an atom. For that reason, electron microscopes can be constructed that can image single atoms.

By effectively lumping together all of the phenomena that take place at energies higher than some cut-off scale, we are lumping together all of the phenomena that are smaller than some corresponding length scale. We do not yet know what happens on smaller length scales, but whatever happens is probably not described by quantum electrodynamics. Supposing that there really are vertices—i.e., supposing that vertices appear not only in Feynman diagrams but also appear in reality at least in some approximate form—in order to describe what happens at a given vertex, we would need to know what happens at arbitrarily small length scales. We do not currently possess a quantum field theory that describes processes at arbitrarily small length scales, and so we do not currently have a physical theory which states that, at a vertex, a photon and an electron coincide at numerically one spacetime point. Consequently, the aforementioned argument made by friends of simultaneous causation—namely, that a proximate cause and its associated effect can be simultaneous because photons are sometimes co-located with their effect—cannot be justified on the basis of any established physical theory.²⁹

6.3.1.9 Conclusion: Phew!

From all the preceding, we conclude that causal transtemporal accounts need not worry about the objection from causal simultaneity. The objection and our ensuing discussion are instructive, however, as they show the intimate connections between debates about persistence arguments and EIT (on the one hand) and broader debates in the metaphysics of causation and the philosophy of physics (on the other). Highlighting this connection is an important goal of ours, as it has been almost entirely overlooked in debates over EIT. We also spent as much time as we did on the objection because it represents perhaps the most formidable challenge to transtemporal accounts of EIT. The fact that this challenge can be met is thus a welcome payoff for the existential inertialist. We turn next to law-based accounts.

²⁹ Another reason to doubt the literal interpretation of Feynman diagrams is that they misleadingly represent electrons, photons, etc. as objects resembling classical particles. On the literal reading of a Feynman diagram, some electron e_1 exchanges momentum with another electron e_2 through an intermediate photon. If e_1 really were the cause of a change in e_2 through an intermediate photon, then we could distinguish the actual world—where e_1 emits a photon that is absorbed by e_2 —from a counterfactual world where e_2 emits a photon that is absorbed by e_1 . However, quantum mechanics—unlike classical mechanics—does not allow us to distinguish the two worlds; physicists say that the actual world is invariant under the exchange of particle labels, while philosophers might say that the electrons do not carry a primitive “thisness” or haecceity in virtue of which the two cases can be distinguished (see Teller (1997, ch. 2) and Schrödinger (1950)). All that we can say is that two electrons interacted; since both possible worlds involve two electrons interacting, they are not actually numerically distinct possible worlds. For purposes of space, though, we won’t explore this reason further.

6.4 Law-Based Accounts

Law-based accounts represent another family of inertialist-friendly explanations of persistence. Such accounts grant laws of nature a special role in explaining (inertial) persistence. Philosophers have developed several accounts of laws of nature. We will focus here on one non-Humean view of laws: Maudlin's primitivism. We leave other Humean and non-Humean views (e.g., the Lewisian account, the Dretske-Tooley-Armstrong (DTA) account, Aristotelian or Essentialist accounts, etc.) for other projects. (For a review of several varieties of non-Humean accounts of laws of nature, see Hildebrand 2020.)

The law-based account we'll articulate derives from Maudlin's (2007) *primitivism*. According to Maudlin, there is a *sui generis* class of statements that report laws. Unlike Neo-Humeans (who reduce laws to patterns of qualities) or friends of platonic accounts (such as Dretske, Tooley, and Armstrong, who reduce laws to relations between universals) or (Neo-)Aristotelians (who reduce laws to the essences, natures, or causal powers and dispositions of objects), Maudlin maintains that laws are irreducible and so cannot be explained in terms of anything else.

Moreover, Maudlin maintains that the passage of time and the persistence of objects—say, from one time to another or from one Cauchy surface to another—are explained by the nomic necessities between the two times or Cauchy surfaces. In some sense, laws *produce* one Cauchy surface from another and provide constraints both on what does and can happen. Successive states of the universe are produced from prior states of the universe, with laws doing the explanatory heavy lifting: “The laws of temporal evolution operate, whether deterministically or stochastically, from that initial state to generate or produce later states” (*ibid*, p. 174). Maudlin continues: “The universe, as well as all the smaller parts of it, is *made*: it is an ongoing enterprise, generated from a beginning and guided towards its future by physical law” (*ibid*, p. 182). Consequently, for Maudlin, successive states of objects are generated or produced from prior states of those objects in virtue of physical law.

That, then, is the basic sketch of a primitivist law-based explanation of persistence. One worry for this explanation runs as follows. Just as detractors of EIT may object that the Humean mosaic of qualities in spacetime is brute and so cannot adequately explain persistence, such detractors may say that Maudlin's primitive laws are yet another collection of brute facts that cannot adequately explain persistence.

However, this worry only seems to be an objection to *Maudlin's account of laws* and not an objection to an explanation of inertial persistence *in terms that assume—as background—the account is true*. Law-based accounts of EIT are most helpfully understood as conditional in nature: *if* the relevant account of laws is true (or rationally defensible, or epistemically possible, or epistemically live, or whatever), *then* there is a corresponding, legitimate, inertialist-friendly explanation of persistence. Whatever one thinks of the primitive nature of Maudlin's laws, what Maudlin's account *does* seem to deliver (if true) is an explanation of the distribution of items in the Humean mosaic. And this, in turn, suffices to explain persistence. One might,

of course, object to *the account of laws*. That's a valuable conversation, but we're not here to defend the account of laws—that is far beyond the scope of the present chapter. What matters for present purposes is that even if one has independent problems with E, one can still recognize that E—if true—legitimately explains one phenomenon.

We also reject outright the claim that <if an explanation E of some data D involves some brute (i.e., not further explained) elements, then E cannot (adequately) explain D>. For starters, lest we admit infinitely descending chains of explanation, *every* explanatory chain must ultimately bottom out in something brute.³⁰ Second, we think there are clear counterexamples to the aforementioned claim. For instance, suppose that a knife appears from nowhere, inexplicably, on your front porch. Now suppose that your neighbor, a serial plant killer, has finally decided to enact their plan to kill your favorite houseplant. As the killer approaches your front door, they realize that they forgot the knife they planned on using to kill your houseplant. No fret for the killer! For there is now a knife on your front porch. The killer picks up the knife, breaks into your house, and kills your houseplant with the knife as you watch in utter horror. Here, we have a perfectly adequate explanation for the death of your beloved houseplant, and yet the explanation will involve something brute (to wit, the existence of the knife used to kill the houseplant). There are many other examples besides, but you get the point.

Another worry is that the account simply re-locates the explanandum, for now we need an explanation of why *the laws themselves* persist. In reply, Maudlin's primitive laws are not further items *within* space or time and hence do not persist. Thus, Maudlin's account doesn't merely presuppose the prior persistence either of the things governed by the laws or of the laws themselves.

Much more can be said, but that suffices for a sketch. Let's turn to necessity accounts.

6.5 Necessity Accounts

Necessity accounts explain persistence by appeal to metaphysical necessity. We divide such accounts into two basic kinds: *propositional* and *objectual* necessity accounts.

Propositional necessity accounts explain the truth of EIT either in terms of its *necessary* truth or the necessary truth of some *other* proposition(s) that explain (inertial) persistence. *Objectual* necessity accounts, by contrast, are more metaphysically heavyweight. Such accounts explain persistence ultimately in terms of the *necessary existence* of one or more temporal concrete objects. Below, we'll articulate three propositional necessity accounts: one from Schmid (2021a,

³⁰ We explain why we think self-explanation (and consequently an explanatory circle) is incoherent in the next section.

b)—hereafter, “Schmid’s propositional necessity account” or “Schmid’s account”—a second from Leon (2019, [Manuscript](#)), and a third from Draper’s principle of sufficient reason for variety. After that, we’ll develop a novel objectual necessity account.

According to Schmid’s propositional necessity account, *EIT itself*—that is, the existential inertia *thesis*—is simply a metaphysically necessary truth. The *truth* of EIT, then, is explained by the *metaphysical necessity* thereof; and its metaphysical necessity is not explained in terms of any more basic or fundamental truths. As applied to explaining (inertial) persistence, Schmid’s account runs as follows. Why does O, for each O within EIT’s quantificational domain, persist? Simply because (i) it is a metaphysically necessary truth that if O exists, O persists (in the absence of continuous external sustenance) unless and until positively destroyed, and (ii) O has not (yet) been subjected to sufficiently destructive factors.

Does this account violate the Principle of Sufficient Reason (PSR)? We don’t think so. First, many contemporary formulations of the PSR are restricted to *contingent* things, and for good reason (cf. Pruss 2006). One reason for the restriction is that necessary things do not seem to (automatically) cry out for explanation the way contingent things do. (Contingent things and truths genuinely could have failed to be, and hence there is a special kind of puzzlement or mystery as to why they in fact *are* that isn’t present in the case of necessary things and truths.) Contingent things—precisely because (speaking loosely) they genuinely could have fallen on either side of the existence/non-existence dichotomy—demand an explanation of why they fall on one side of the dichotomy. Necessarily existent (or true) things, by contrast, couldn’t possibly fall on the non-existence (or falsehood) side of the dichotomy. Moreover, as Pruss points out, we simply don’t have an adequate grip on the nature of explanations of necessary things and truths to categorically require explanations of them. Consider, for instance, distinct but logically equivalent axiomatizations in mathematics in which there seems to be no non-arbitrary way to deem one set of axioms (as opposed to another) explanatorily fundamental.

Second, *every* explanatory account of persistence will bottom out in *some* form of primitive or basic metaphysical necessity (lest we admit either a brute/primitive contingency or else an infinitely descending chain of more fundamental explanations—though, even then, there is the further question of why there is such a chain in the first place, which will presumably be a primitive metaphysical necessity). Alternatively, if one posits that necessity is a kind of self-explanation (thereby avoiding primitivity), then the same self-explanation seems available (in principle) for the propositional necessity account.

Moreover, the account does not obviously accrue a theoretical cost by ending in a primitive or unexplained necessity. The proposition we wish to explain is that temporal concrete objects persist. Let this proposition be *p*. Now, the chain of (metaphysical) explanations of *p* is either finite or infinite. If the chain of explanations is infinite, then it’s not clear whether we actually have an adequate explanation of *p* after all. If *p* obtains in virtue of *q*₁, and *q*₁ obtains in virtue of *q*₂, and so on *ad*

infinitum, we seem to have simply infinitely *deferred* an adequate explanation of *p*.³¹ This kind of infinite dependence regress, in many philosophers' eyes, is vicious. So suppose that the chain of explanations of *p* is finite. In that case, the chain ends in something that is *not further explained*—that is, the chain ends in something primitive. But in that case, the fact that Schmid's propositional necessity account ends with something primitive is surely no mark against the account, since *every* explanation of *p* must likewise end in something primitive. Indeed, we could go further: this primitive is either contingent or necessary. But contingent propositions—precisely because they *genuinely could have been false*—seem to call out for further explanations of why they are true. (See Pruss (2006) for an extended defense of the thesis that every contingent proposition has an explanation.) Plausibly, then, the primitive must be *necessary*. But then *any* explanation of *p* terminates in a primitive necessity, and so surely it's no mark against Schmid's account that its explanation of *p* terminates in a primitive necessity.

In the above paragraph, we assumed that *not further explained* implies *primitive*. But one might think that the propositional terminus of a chain of explanations—while not explained by any *further* proposition—is nevertheless *self-explanatory*. We have two responses.

First, we find it plausible that nothing can explain or account for why it *itself* is true (or obtains, or exists) at all. For in order to have any explanatory power in the first place, it would “already” (as it were) have to be true (or obtain, or exist). Just as (a) nothing can *cause* itself to exist, for something must *already* exist in order to have *any* causal power, and just as (b) nothing can *ground* its own existence, for something must *already* exist in order to have *any* grounding power, so too can nothing *explain* itself, for something must *already* exist in order to have *any* ability to explain anything at all. Moreover, if some *x* could explain its own existence, then when we ask why *x* exists, “because *x* exists” would be the explanation. But that's no explanation at all—it doesn't add *anything* new or remove *any* mystery. A *propositional* variant of this point can also be made. If we ask why *q* is true, it's no use responding “because *q* is true.” Surely, we say, this explains nothing!³²

But suppose we're wrong about the impossibility of self-explanation. Suppose that some propositions (or entities, etc.) can explain their own truth (or existence,

³¹ As Schaffer (2010, p. 62) put it, “being [or, we add, truth] would be infinitely deferred, never achieved.” (See Oberle (Forthcoming) for criticisms of this kind of argument. Though, Oberle argues that this kind of argument fails for the same reason that classical theistic arguments against infinitely descending *per se* causal chains fail. So in the dialectical context of persistence arguments, leveling this kind of argument against infinitely descending grounding-style explanations is perfectly kosher.)

³² We're not alone in thinking nothing explains itself. As Bliss and Priest (2018, p. 12) note: “It is a plank in much of the literature on explanation that reflexive explanations are trivial, uninformative, and explanatorily useless.” Raven (2013, p. 193) goes so far as to call it *orthodoxy* that “nothing explains itself.” And as Cameron (2022, p. 76) puts it, “In no good explanation is the explanans the same as the explanandum, for there can be no new information, no increase in understanding, in such an ‘explanation.’”

etc.). Presumably, this will involve the proposition having a kind of “intrinsic intelligibility”—once the proposition is grasped, there is no mystery concerning why it is true. This brings us to our second response: plausibly, *no* explanation of persistence will be self-explanatory—in which case, each explanation of persistence will end in an unexplained primitive. And in that case, the fact that Schmid’s propositional necessity account ends in an unexplained primitive is no mark against it as an explanation of persistence. Consider explanations of persistence that deny EIT. Such explanations either adduce one or more *atemporal* concrete objects that sustain temporal objects or else an infinitely descending chain of more fundamental temporal concrete objects sustaining or conserving less fundamental temporal concrete objects (of which the former aren’t parts). But, clearly, neither the proposition <there is such an atemporal concrete object> nor the proposition <there is such an infinitely descending chain> is self-explanatory in the aforementioned sense.

Another potential objection to Schmid’s account is that it stops the explanatory buck too early. For there are *further explanations available*—ones that are viable and illuminating. All else being equal, if we have a viable, readily available, illuminating explanation for *x*, then we shouldn’t adopt a view on which *x* is simply brute. We should, instead, explain things as far as we can. Schmid’s account violates this. It explains persistence by appeal to metaphysical necessity, which, in turn, is taken to be a primitive stopping point. But there *is* a viable, readily available, illuminating explanation of persistence in terms of the sustaining activity of something timeless. Like Schmid’s account, this explanation will eventually bottom out in some primitive metaphysical necessity; but *unlike* Schmid’s account, this explanation doesn’t fall afoul of stopping the explanatory buck too early. What to make of this objection?

We have two responses. First, even if the alternative account adducing timeless sustenance has an explanatory advantage over Schmid’s propositional necessity account, the latter is far more *parsimonious* than the former in terms of both quantitative simplicity (the number of entities postulated) and qualitative simplicity (the number of irreducible *kinds* of entities postulated). For the former posits not only more *entities* (namely, timeless concreta in addition to temporal concreta, as well as relations obtaining between the two) but also more *kinds* of entities (namely, the new category of *timeless concreta*). Thus, even *granting* an explanatory advantage to the timeless sustenance view, it’s not clear that the timeless sustenance view is superior to Schmid’s account *all things considered*.

Second, why think that the timeless sustenance view enjoys an explanatory advantage? For us, at least, the timeless sustenance view only seems to *multiply* rather than *reduce* mystery. What, for instance, does the timeless-to-temporal explanatory relation consist in? How can something timeless cause (or ground, or realize, or whatever) temporal things? If a dynamic view of time is correct, wouldn’t the timeless cause change at least in its relational properties, thereby entailing *succession* in its

life (and, hence, temporality)?³³ Moreover, why does the timeless cause seem to make a concerted effort to ensure that objects only cease to exist once they are positively destroyed? This harkens back to Oderberg's observation: we witness things ceasing to exist *when and only when* they are subjected to destructive factors or influences. But this seems wholly mysterious if there is an altogether separate way for such objects to cease to exist (namely, a withdrawal of timeless sustaining activity). If the timeless sustainer genuinely *could* remove the timeless sustainer's sustaining activity at any moment of an object's life, why does this *never* seem to occur for objects, *except* when and only when the objects are subject to destructive influences? And even in cases where the objects are subject to destructive influences, surely the *destructive factors*, and not the withdrawal of timeless sustenance, suffice to explain the object's cessation. One might say that the timeless sustainer is *necessitated* to engage in such sustaining activity. But why would that be? Is this just a brute or primitive necessity? Going this route, it seems, will similarly multiply mysteries. Theistic detractors of EIT will likely resist this response, too, as it seems to remove God's freedom.

Obviously, none of the aforementioned questions amount to *objections*. Our purpose in posing the questions is to illustrate that the timeless sustenance account seems merely to *raise* more questions than it answers—it only seems to *multiply* rather than *reduce* mystery when explaining persistence. For that reason, the timeless sustenance account does not obviously enjoy an explanatory advantage over Schmid's account.

Before turning to a second propositional necessity account, we will address Feser's (2021) criticisms of Schmid's account. Feser's first criticism "is that there is no reason to believe it" (2021a). There are several problems with this criticism. First, the purpose of spelling out the metaphysical accounts of EIT is *not* to provide positive reasons for accepting them. Rather, the purpose is to metaphysically flesh out EIT—to pinpoint what it is in virtue of which EIT is true if EIT is true at all. Arguments for EIT are a separate question. Second, we will discuss several such arguments at length in the next chapter. Assuming (quite plausibly) that justifying the truth of EIT provides at least some justification for the workable metaphysical accounts of EIT, there is *some* reason to believe the propositional necessity account.

Third, suppose that Feser is right that there is no reason to believe the propositional necessity account. Importantly, this is not thereby a mark against the

³³ For example, assuming that *x* is causally sustained by the timeless cause, the timeless cause will arguably *acquire* a relational (causal) property once *x* begins to exist and *lose* a relational (causal) property once *x* ceases to exist. To be sure, such changes need not be *intrinsic* to the timeless thing. There are plenty of cases where a subject gains or loses some *relational* property without undergoing *intrinsic* change. (A father might become shorter than his son solely because *his son has grown*.) But even in such cases, the subject of the extrinsically relational change is *temporal*, since the subject can only gain or lose the relational property if there are distinct moments *m* and *m** of its life at which the relational property is had and then lacked (or vice versa). For instance, it is *precisely because* the father is temporal that the father can at *one* point be *taller* than his son and then, at a *later* point, be *shorter* than his son. He cannot be both taller and shorter than his son, whether at the same time or timelessly.

propositional necessity account. Whether it's a mark against the account *depends on the dialectical context*. As we've seen, in one popular dialectical context in which EIT arises, persistence arguments for classical theism contain premises that deny EIT. In that context, friends of EIT do *not* need to give *positive reasons* to believe Schmid's propositional necessity account. They need only point out that (i) nothing in the relevant premise(s) or what the proponent says on their behalf adequately justifies *denying* the account, and that (ii) justifying such a denial is precisely what would *need* to be done for the persistence argument to work. In other words, the account need only be proffered as an *undercutting* defeater against persistence arguments, and one need only point out that nothing that proponents of such arguments have said provides those who *do* accept (or are agnostic on) the account sufficient reason to abandon their position.

For these three reasons, Feser's first criticism of the propositional necessity account fails. Let's now consider Feser's (2021) second criticism: "The second is that there is positive reason to *disbelieve* it. Again, with lions, Tyrannosauruses, water, etc., there is simply nothing about their natures or essences that entails that they exist *at all*. So how could it be just a *basic and necessary* feature of a world comprised of such things that they *persist* in existence?"

Now, there isn't much to evaluate here, since Feser simply asks a question and, in doing so, perhaps supposes that his audience shares his intuition that the following conditional claim is true:

Conditional: If it's not a basic and necessary fact that <contingent temporal concrete object O exists>, then it is also not a basic and necessary fact that <once O exists, O persists in the absence of sustenance and destruction>.

But why should we accept *Conditional*? Asserting *Conditional* amounts to merely *flatly asserting*, rather than *justifying*, a denial of Schmid's propositional necessity account.³⁴ Other than Feser's direct arguments against EIT *as such* (to which we turn in the next chapter), all Feser offers on behalf of this second criticism is a rhetorical question. That won't cut it.

So much, then, for Feser's second criticism of the propositional necessity account. Feser's third criticism concerns our claim, defended above, that the timeless sustenance account does not clearly enjoy an explanatory advantage over Schmid's propositional necessity account. Both theses end the explanatory chain in a primitive necessity, and yet EIT is more parsimonious. Feser (2021) begins his third criticism with the following: "As I argue in *Five Proofs* and in my article on existential inertia ... the *reason* contingent things are contingent is that they are composed of parts, and in particular that they have potentialities as well as actualities."

³⁴ It should be noted, moreover, that this argument—even if successful—would only rule out the propositional necessity account if contingent objects fall within EIT's domain of quantification. But both EIT and the propositional necessity account could still be true if all contingent objects are uniformly sustained from without, so long as the foundational necessary object(s) are *temporal*. Thus, Feser's criticism, even if successful, doesn't rule out the propositional necessity account *simpliciter*. It would only rule it out as an explanation for why *contingent* objects inertially persist.

But the reason contingent things are contingent is *not* that contingent things are composed of parts or that contingent things have potentialities and actualities. Consider the number two. Plausibly, the number two has various properties, such as the property *being even*. But, by the lights of those who accept a broadly classical theistic understanding of parthood, anything with various properties is a composite thing. This is one reason classical theists deny that God has a multiplicity of properties—that would, by their lights, entail that God has parts, whereas God is simple. Thus, the number two is a composite thing. But the number two is not a contingent thing. The number two does not just *happen* to exist in some possible worlds and not others. So, composition does not imply contingency, and hence the reason why contingent entities are contingent is *not* that such entities are composed of parts. Or consider a view of God on which God is timeless, immutable, impassible, necessarily existent, but nevertheless has some potential for cross-world variance. (Suppose God has potential to have timelessly performed an act of creation that is numerically distinct from God’s actual act of creation, or God has potential to have different intrinsic belief states (timelessly) across worlds, or whatever.) Obviously, nothing about God (so construed) having some potential for cross-world variance compromises God’s being metaphysically necessarily existent. Thus, the reason why a given entity is contingent is *not* that it has potentialities as well as actualities. Examples can be multiplied, but you get the point.)

Whether you think the number two exists or whether you accept this model of God is irrelevant, since we’re concerned with *in principle counterexamples* to the claim that the *contingency* of a contingent entity is owed to whether the entity is composite or owed to whether the entity has a mixture of potentialities and actualities. Thus, even if you deny that there are numbers or that such a God exists, this denial doesn’t engage our counterexamples. The dialectic is similar to the following. Suppose you say that what makes it the case that an entity enjoys moral worth is that the entity, in its normal course of development, is capable of interpersonal communication. We respond by pointing out that this account would entail, absurdly, that an intelligent, rational, sentient alien species with no communicative practices or abilities would lack moral worth. Clearly, it’s no use responding to our counterexample that there are no such aliens. The point is that (i) if there *were* such aliens, they *would* have moral worth, and yet (ii) according to your account of moral worth, they *wouldn’t*. And so your account fails.³⁵

Feser continues with his third criticism: “when we say that God is absolutely simple rather than composite and that he is pure actuality devoid of potentiality, we have given an *explanation* of his lacking contingency—that is, of his existing of necessity” (2021).

³⁵ What’s more, all that matters dialectically is that we have counterexamples *by the lights of those who don’t accept Feser’s persistence arguments*. Remember, the onus is on Feser to convince detractors of his arguments to *come to accept them*—in which case, it’s no use for Feser to appeal to principles (like $\langle x \text{'s being composite or having any potency entails } x \text{'s contingency} \rangle$) to which there are counterexamples by the lights of detractors.

But this is beside the point. The point is that if one has an explanation of the necessity, we can equally well ask, of that explanation, *why is that the case?* What explains God's being purely actual and non-composite? (Note: we're not here asking about what *justifies believing* that God is purely actual or simple. We're asking what *explains* why this is so.) The fact that there is a simple, purely actual entity would ultimately be a primitive or basic fact, albeit a necessary one. (We've argued that something primitive is unavoidable for *every* account of persistence, and this is the best candidate for the primitive stopping point under classical theism.) Without falling into vicious circularity, we cannot, of course, appeal to an entity's simplicity or pure actuality to explain that entity's simplicity or pure actuality. Further, Feser cannot appeal to the entity's *necessity* to explain its simplicity or pure actuality, since Feser appealed to its simplicity and pure actuality precisely to *explain* the entity's necessity. Both accounts, then, will end in some primitive or basic fact, albeit a necessary one. Feser might argue that his account is more illuminating or that Schmid's account stops the explanatory buck too early. But then we will simply raise the same responses we leveled earlier in comparing the propositional necessity account to the timeless sustenance account. We argued, first, that Schmid's account is a simpler explanation. Hence, even if we grant that the timeless sustenance account has an explanatory advantage over the propositional necessity account, it's an open question whether the explanatory advantage sufficiently outweighs the cost in complexity. Second, we argued that the timeless sustenance account raises more questions than it answers and more mysteries than it resolves, and hence it's far from clear whether the timeless sustenance account is explanatorily superior to Schmid's account.

Having defended Schmid's propositional necessity account, let's turn to a second propositional necessity account. Felipe Leon (2019, pp. 297–298; [Manuscript](#)) has argued for a thesis he calls the Principle of Material Causality or PMC, according to which every concrete object that has an efficient originating or sustaining cause must also have a material originating or sustaining cause, respectively.³⁶ (Similar principles have been employed or defended in Morrision (2002c, pp. 29–31), Fales (2010, pp. 38–39), and Grünbaum (1989).) Why think that PMC is true? Following Morrision (2002c, p. 29), Leon asks us to consider the following two scenarios:

No Materials: There is a powerful entity who counts from three down to one. Upon counting one, the entity commands a house to appear. Poof! A fully-formed house spontaneously appears as a result.

³⁶ As Leon uses the terms, an *efficient originating cause* is the efficient cause of a patient's coming into existence. An *efficient sustaining cause* is the efficient cause of a patient's continued existence. A *material originating cause* is the temporally or ontologically prior things or stuff *from* which (though not necessarily *of* which) a patient is first made. And a *material sustaining cause* is the temporally or ontologically prior things or stuff from which a patient continues to be made (if, of course, the patient is *continually made to exist* at all—that is, if it is sustained in being as it persists). Note that a material cause in Leon's sense needn't be *material* or *physical* things or stuff. (For instance, as Rasmussen and Leon (2019) point out, it's compatible with *panentheism*.)

No Builder: Various construction materials—in fact, all the construction materials necessary for building a house—are strewn over a field. One day, the construction materials spontaneously and uncausedly assemble into a house.

In *No Materials*, a house appears with an efficient cause but no material cause. In *No Builder*, a house appears with a material cause but no efficient cause. Morriston and Leon argue that there is symmetry between *No Materials* and *No Builder*, such that there's considerable pressure for anyone who accepts that *No Builder* is metaphysically impossible to also accept that *No Materials* is metaphysically impossible. Both scenarios are deeply contrary to our ordinary experiences, to the inductive generalizations afforded by our ordinary experiences, and to our metaphysical intuitions. Thus, given the parity between the two cases, there is pressure for anyone who accepts that the creation of things without an efficient cause is metaphysically impossible to also accept that creation of things without a material cause is metaphysically impossible. Leon offers similar arguments for the conclusion that any concrete entity with a sustaining efficient cause must also have a sustaining material cause. If Leon is right, then *no per se* chain has a link involving an efficient cause without involving a material cause. The theist cannot appeal to their view that God is omnipotent in order to show that God could create or sustain the universe *ex nihilo* without assuming the very point of contention. On standard accounts of omnipotence, God can only perform metaphysically possible tasks. But the very question at issue is precisely whether casual origination or sustenance without a material cause is metaphysically possible. And, indeed, Leon offers principled reasons for thinking it isn't.³⁷

If Leon is right that creation without a material cause is metaphysically impossible, then there are at least two (compatible) reasons why this might be so. First, there might be a metaphysically necessary principle according to which concreta cannot be caused to exist or sustained in existence without materially originating from or being materially sustained by something. Second, due to the nature or essence of concreta, concreta might be such that they cannot be caused to exist or sustained in existence without a material efficient or sustaining cause. In either case, temporal concrete objects cannot be *efficiently* caused to originate or persist without being *materially* caused to originate or persist (respectively). But how does this amount to an inertialist-friendly explanation of persistence?

Well, there are two options. Either some temporal concrete objects persist without a sustaining efficient cause, or else no temporal concrete objects persist without a sustaining efficient cause. The former option will deliver EIT (together with

³⁷ Several arguments can be adduced in support of PMC. For example, Leon argues that (i) PMC enjoys wide empirical support from the evidence we have for the (local) conservation of matter-energy, (ii) whenever we observe a concrete object to have a sustaining or originating cause, we observe the object to have a sustaining or originating material cause, (iii) there are no clear counterexamples to PMC, and (iv) the truth of PMC would provide a simple, conservative, and powerful explanation for the fact that there are only confirming instances and no disconfirming instances for PMC. A still further argument for PMC might be adapted from the argument we discussed in Sect. 4.4 from Edwards and co. for the causal principle. Alas, we leave developing such an argument for a future occasion.

innocuous claims about when objects cease to exist), so let's focus on the latter option. If no temporal concrete objects persist without a sustaining efficient cause, then either (a) there are infinitely descending per se chains of causes, or (b) there are causal loops, or (c) chains of per se causal sustenance are finite and so terminate in some uncaused *timeless* efficient sustaining cause of one or more temporal concreta. But since persistence arguments need to rule out (a) and (b), we can set those aside in the present dialectical context.³⁸ That leaves us with (c): chains of per se causal sustenance are finite and so terminate in some uncaused *timeless* efficient sustaining cause of one or more temporal concreta. The problem, though, is that (c) seems to violate PMC. Since per se chains of *efficient* causal sustenance of temporal concreta are finite, per se chains of *material* causal sustenance of temporal concreta are likewise finite.³⁹ Now consider a given per se chain of material causal sustenance C with at least one temporal concrete object as a non-primary member. Pick the most fundamental *temporal* member M of C. Because M is the most fundamental temporal member of C, M has no *temporal* sustaining material cause. (If M had such a cause, there would be some temporal member of C more fundamental than M.) But M also has no *timeless* sustaining material cause. It seems absurd to suppose that something temporal could be continuously *made from* something timeless. Material causes *go into the makeup* of their patients, either directly or by being transformed into some things or stuff that go into their makeup. But, plausibly, timeless things cannot *go into the makeup* of temporal things. To us, that makes no sense. Hence, M has neither a temporal nor timeless sustaining material cause—in which case, M has no sustaining material cause. But by (c) (and by persistence arguments more generally), M has a sustaining *efficient* cause. So, M has a sustaining *efficient* cause without a sustaining *material* cause. But this violates PMC. Hence, if PMC is true, we can rule out (c). We have thus ruled out each of (a), (b), and (c). But as we saw earlier, if no temporal concrete objects persist without a sustaining efficient cause, one of (a), (b), or (c) is true. Hence, some temporal concrete objects persist without a sustaining efficient cause, delivering us EIT.

The second propositional necessity account, then, would appeal to PMC, together with the above paragraph's reasoning, to offer an inertialist-friendly explanation of persistence. The explanation, in short, would be that (i) PMC is true; (ii) temporal concrete things cannot be continuously *made from* something timeless; and (iii) if

³⁸ Strictly speaking, persistence arguments are compatible with (a) so long as there is a primary cause *outside* the infinitely descending per se chain which enjoys the relevant causal power non-derivatively. But for our point in this paragraph to have teeth, we only need *one* per se chain of sustaining causes to be finite. And we think it's deeply implausible to suppose that *every* temporal concrete object *ever* has been sustained in existence by infinitely many other temporal concrete objects in addition to a timeless concrete object. This is metaphysical profligacy *in excelsis*.

³⁹ This is because the same reasons for thinking per se chains of *efficient* causal sustenance must be finite (e.g., that *borrowed* or *derived* being ultimately presupposes some reality with *unborrowed* and *underived* being) equally apply to per se chains of *material* causal sustenance (since the being of something is at least partly derived or borrowed from its material cause, if it has one). Moreover, not only is the *being* of the non-primary members of the chain of material causation derived (at least in part) from all prior members, but so is their property *being made of things or stuff*—that, too, is purely owed to or derived from another.

(i) and (ii) are true, then some temporal objects persist absent efficient causal sustenance.⁴⁰ That some temporal concrete objects persist absent efficient causal sustenance simply *follows* from (i)–(iii), and—at least for us—they offer an illuminating account of why some temporal concrete objects persist absent efficient causal sustenance.

One might, of course, wonder why (i) is true. But, first, that’s a separate explanatory question from why some things inertially persist. Second, as previously discussed, we might explain PMC in terms of the very *nature* of temporal concreta. Finally, such a necessary metaphysical principle may be a plausible and principled candidate for being unexplained.

A third propositional necessity account is suggested by a variation on the Principle of Sufficient Reason that Paul Draper has articulated and defended. Specifically, Draper defends the *Principle of Sufficient Reason for Variety (PSRV)*, according to which necessarily, *variety* requires an explanation but *uniformity* does not.⁴¹ Examples of variety include *temporal* variety (i.e., change) and *spatial* variety (i.e., diversity in spatial distributions of objects or properties). Now, if Draper’s PSRV is true, then temporal concrete objects, once they exist, remain in existence without needing continual external sustenance unless and until there’s an explanation for their cessation. This is because (i) *persistence* is a kind of *uniformity* through time and so—per PSRV—would not require an explanation in terms of sustenance or conservation from without;⁴² and (ii) *cessation* is a kind of *variety* through time and so—per PSRV—*would* require an explanation or sufficient reason. All that’s left to add to this propositional necessity account is that the aforementioned explanation or sufficient reason will come by way of a (sufficiently) destructive factor.

Again, whether the PSRV is *true* is beside the point. What matters is simply that it features in an illuminating, coherent, inertialist-friendly explanation of persistence. We won’t pursue this propositional necessity account further, though, since our overarching purpose is to catalog the panoply of inertialist-friendly explanations of persistence.

Having covered propositional necessity accounts, we turn next to our objectual necessity account. The account can be articulated as follows:

⁴⁰We learn (iii) from the previous paragraph.

⁴¹Draper articulates and defends the PSRV from 37:27 to 41:19 in his discussion with Joshua Rasmussen in *Majesty of Reason* (2022). One of Draper’s motivations is that PSRV is plausibly presupposed by science—science is in the business of uncovering underlying uniformities that account for the great variety of phenomena in the physical world. If uniformities demanded explanations in the way that varieties do, science wouldn’t be making any explanatory headway in uncovering such underlying uniformities.

⁴²Technically, this doesn’t deliver that temporal concrete objects *do* persist in the absence of such sustenance. To secure this, we can add to the account the claim that if such sustenance isn’t *required*, then it’s (probably) *absent*. After all, if positing a new category of things (e.g., timeless sustaining causes) isn’t required to explain the data, then we should shave away the category in line with Occam’s Razor.

Objectual Necessity Account (ONA): There exist one or more concrete objects (call them “N”⁴³) such that (i) N necessarily exists, (ii) N is temporal, (iii) N is fundamental (i.e., N’s existence is not ontologically dependent on any more fundamental object), and (iv) N’s existence and/or activity directly or indirectly explains (whether by causation, grounding, constitution, realization, or etc.) the existence of every non-N temporal concrete object at any moment at which it exists.

ONA is inertialist-friendly because N is one or more temporal concrete objects that persists in the absence of both destruction and conservation from without.

ONA is perhaps the oldest metaphysical account of persistence, with versions thereof dating back to the pre-Socratic atomists. For Epicurus, the objects of our ordinary experience are composed of minute, indestructible, eternal, and intrinsically unchanging entities with no internal structure—*atoms*—whose rearrangement explains the formation and dissolution of ordinary objects. The significance of Epicurus’s view for rebutting classical theistic proofs was not lost on some of the earliest atheists known to Western philosophy, who, as Michael Buckley (1987, p. 282) describes, maintained that “Matter carries the attributes of god. [Matter] is the necessary being. It is contradictory, inconceivable, to imagine a moment when [matter] did not exist.” (Also see Kors 2016 and Dupré 1999.) For the early modern Epicureans, the atoms have no potential for non-existence; they necessarily exist, and cannot cease to exist, in virtue of what they are.

However, our conception of matter (and of physical entities more generally) has changed since the ancient or early modern atomists. While scientists continue to use the term “atom,” the scientist’s atoms are not impenetrable bodies with no internal structure. Moreover, subatomic particles are likewise not to be thought of as impenetrable bodies; instead, subatomic particles should be understood as excitations in a corresponding field. Nonetheless, the Epicurean’s account can be modified and resurrected. Perhaps the diversity, persistence, creation, and destruction of macrophysical objects can be caused by, grounded in, constituted by, or realized by a more fundamental layer of reality that, while temporal, lacks any potential for non-existence. Proponents of ONA pursue precisely this strategy.

We turn to six clarifying notes concerning ONA. First, ONA leaves open the explanatory relation that obtains between N and non-N objects. ONA allows the explanatory relation to be one of efficient causal sustenance, grounding, constitution, realization, or something else.

Second, ONA differs from propositional necessity accounts, since the latter aim (roughly) to explain the truth of the inertial thesis in terms of the metaphysical necessity thereof, whereas ONA posits one or more *necessarily existent temporal concrete objects* to explain inertial persistence. ONA is therefore more metaphysically heavyweight than such accounts.

Third, recall the fundamental question with which we’re concerned: what explains temporal objects’ moment-by-moment existence? ONA provides a satisfying explanation: any non-N temporal object, at any moment at which that object

⁴³ We’ll use “N” as a singular noun, but we stress that it stands for one *or more* objects of the kind articulated in ONA.

exists, is either caused by, realized by, grounded in, or constituted by some fundamental thing(s). Persistence of non-N objects, then, is explained in terms of the continual existence and/or activity of N.⁴⁴ All that's left to explain, then, is the persistence of N. And surely there's an explanation of that at hand. Why does N persist in existence? Because (i) N is temporal (and so liable to persist), and (ii) N is necessarily existent—N cannot fail to exist and, *a fortiori*, cannot cease to exist. As Pruss and Rasmussen (2018, p. 78) put it: “there is a simple explanation of existential inertia readily available: fundamental bits of reality necessarily *persist* because they necessarily *exist*. In short, necessary existence explains necessary persistence.”

Of course, there's the further question of what explains N's necessity. But notice that we are now no longer concerned with explaining persistence *as such* but instead some feature of N. A failure to explain N's necessity would not mitigate the explanatory efficacy of N's necessity with respect to N's *persistence*—once we're granting that N is necessary (and temporal), there's no mystery as to why N persists. The explanation here is illuminating *whether or not* we have an explanation at hand for N's necessity, and hence explaining N's *persistence* is not hostage to explaining N's *necessity*. What's more, there are several (seemingly) viable proposals for explaining N's necessity. An expressly theistic solution might explain N's necessity in terms of perfection, along lines similar to Byerly (2019). Why does N enjoy necessary existence? “[B]ecause it is a perfect being—a being possessing all perfections—and necessary existence is a perfection” (Byerly 2019, p. 12).⁴⁵ Another solution might explain N's necessity in terms of (i) an Aristotelian account of modality and (ii) the non-existence of causal powers capable of destroying N or bringing it about that N never existed (along lines similar to Lo 2020). Alternatively, if self-explanation is coherent, the necessity might explain itself. Or N's nature might explain N's necessity. Or the necessity might be primitive. And so on down the list. (We'll discuss several additional explanations in Chap. 9.)

Fourth, there's the question of N's intrinsic nature or character: what might N be? We wish to remain neutral on this. Perhaps it's a collection of fundamental particles, or mereological simples, or physical simples, or superstrings.⁴⁶ Or perhaps it's some foundational quantum field, or the universal wavefunction (understood as temporal), or some neutral monist substance, or the priority monist universe (Schaffer 2010), or matter-energy, or dynamical physical principles (Gunn 2021). Or perhaps

⁴⁴ If the relation between N and non-N objects is one involving *constitution*, then N will not be an *outside* or *external* sustaining or conserving explanation of the persistence of non-N objects—in which case, given our articulation of EIT, both N and non-N objects would inertially persist. But if the relation is one that *doesn't* involve N constituting non-N objects, then only N will inertially persist. In either case, EIT is true.

⁴⁵ For responses to Byerly, see Lo (2020) and Anderson (2022).

⁴⁶ For a recent defense of an existential inertialist view on which the foundational temporal reality is a collection of enduring mereological simples, see Benocci (2018).

it's the temporal God of neo-classical theism or panentheism.⁴⁷ Options abound for the inertialist.

Fifth, some authors have defended the claim that the past must have a beginning. But if there is a necessarily existent *temporal* concrete object, wouldn't that entail that the past is beginningless? And, in that case, wouldn't reasons for thinking that the past is necessarily beginningless count against the hypothesis of a necessarily existent concrete object?

No. First, suppose that a substantialist view of time is correct—so that time is a concrete substance—and that time necessarily exists. Furthermore, suppose that time has a beginning in every possible world. In that case, there would be a necessarily existent concrete entity—namely, time itself—that has a beginning in every possible world. More generally, even if time isn't substantialist in nature, N's necessity isn't compromised by N's having a beginning, as N may simply have a beginning *in every possible world*.

Second, several philosophers who defend the view that the past must have a beginning also defend the view that God is a beginningless temporal being. For example, Craig and Sinclair (2009, p. 189) have defended the view that God is beginningless because God exists timelessly *sans* creation and temporally with creation. Insofar as Craig and Sinclair's view is coherent, any concrete object—whether God or otherwise—that exists timelessly *sans* metric time and temporally since the beginning of metric time would be beginningless. It could be the case, then, that (i) time has a beginning, (ii) N is temporal, and yet (iii) N does not have a beginning. What's more, one of us has defended an alternative account on which a temporal concrete thing might be beginningless despite having a finite past (Linford 2022b, ch. 5).

Other philosophers have defended the view that while time itself is beginningless, *metric* time had a beginning. For example, Mullins (2014, pp. 164–167; Manuscript), Padgett (1992), and Swinburne (1993, pp. 208–209) have argued that while time itself is beginningless, metric time had a beginning and was preceded by non-metric time. On their view, there is no fact of the matter about the duration of past time *as such*. In that case, while N exists in metric time, and while metric time has a beginning, it wouldn't follow that *N itself* had a beginning, since N itself may pre-exist the beginning of metric time in *non-metric* time. And non-metric time, in turn, has no beginning. Now, for Mullins, Padgett, and Swinburne, *God* is the necessarily existent temporal concrete object that lacks a beginning (in the sense that there is no fact about the total duration of God's past history, since God exists in *non-metric* time prior to the beginning of metric time). But non-theists can similarly endorse models on which there is a necessarily existent temporal concrete object without a beginning (in the sense that there is no fact about the total duration of that entity's past history). For example, there are cosmological models (e.g., Penrose

⁴⁷ For extended defenses of divine temporality, see Mullins (2016) and Craig (2001). For more on panentheism, see Oord (2015) and Gocke (2017). We'll discuss an argument for divine temporality in Sect. 7.2.2.

2012; Linford 2022a) in which the universe's history includes segments of non-metric or amorphous time.

In any case, suppose that the necessary existence of a concrete temporal entity *were* inconsistent with the view that either time or metrical time must have a beginning. Why should we find this terribly problematic? We are not convinced by the standard arguments for the finitude of the past. For representative criticisms, see (inter alia) Morriston (1999, 2002a, b, 2003, 2010, 2013), Oppy (2006), Draper (2008), and Leon (2019). For recent criticisms of Craig and Sinclair's scientific case for the finitude of the past, see Linford (2021, 2022a, b, [Forthcoming](#)) and the references therein. For recent criticisms of the argument from successive addition against a beginningless past, see Morriston (2022), Malpass ([Forthcoming](#)), and Leon (2011). For recent criticism of the argument from the impossibility of actual infinities, see Malpass and Morriston (2020), Hedrick (2014), and Rasmussen and Leon (2019, ch. 5).

To summarize our fifth note on ONA, the fact that N is a necessarily existent temporal concrete object does *not* entail that the past is beginningless. First, N could simply begin *along with time* in every possible world. Second, N could exist timelessly *sans* metric time and temporally since the beginning of metric time. Third, N could be beginningless by dint of pre-existing the beginning of metric time in a non-metric or amorphous time. Fourth, as far as we're convinced, metric time may very well be beginningless. For these four reasons, we're not worried about alleged issues ONA raises for the nature and extent of past time.

Sixth, what if there cannot be necessarily existent concrete objects? We're not convinced there couldn't be. (For a variety of arguments for (and responses to objections to) the existence of at least one necessarily existent concrete object, see Pruss and Rasmussen 2018). But suppose necessarily existent concrete objects are impossible. *A fortiori*, the foremost view that *denies* EIT—to wit, the view that every temporal concrete object is sustained by a *necessarily existent*, timeless divine cause—is false. Dialectically, then, this is not a strategy open to the foremost detractors of EIT. Moreover, there's a swift modification of ONA that doesn't commit to any necessarily existent concrete objects: simply modify ONA to say (roughly) that necessarily, *some* foundational temporal concrete object *or other* exists, even though no *particular* foundational object is such that *it* necessarily exists.

Once again, we don't claim that ONA is *true*. Our purpose here is to develop a new, inertialist-friendly explanation of persistence and to situate that explanation within the categories of this chapter and the existential inertia debate at large.

6.6 No-Change Accounts

A fifth family of accounts could be termed *no-change accounts*. These accounts view persistence as an *absence* of change and take this fact to be central to their inertialist-friendly explanation of persistence. No-change accounts are developed in

Rundle (2004), Oppy (2021, p. 494), and Schmid (2021a, b).⁴⁸ Because Oppy does not develop the account in extensive detail, we will focus on Rundle's and Schmid's renditions, after which we'll develop two no-change accounts of our own.

Rundle (2004, pp. 88–92) holds that persistence is not itself a change and concludes, on that basis, that no continuously operative sustaining cause is needed to explain it. Thus, Rundle writes: "When, we may ask, is a sustaining cause needed? Most obviously, when there is a disintegrating factor to be countered or inhibited, as when a structure will collapse unless it is supported. However, if there is no such threat there is no such need" (*ibid.*, p. 88). He continues:

[B]y revealing certain conditions not changes in the relevant sense ... we rebut the need for a sustaining cause.... [A]s a change, the cessation of a state requires a cause, and this in two possible ways: a cause acts so as to terminate a state, or a sustaining cause ceases its activity. With the continuation of a state, a cause is needed if the state is of the latter kind, involving certain kinds of change within it, or if a cause which would terminate the state needs to be inhibited. This leaves persisting states, as with simply existing, or being oblong, seemingly without need, in general, of any causes of their persistence, the most obvious reason being that persistence does not involve change. If something is still around after many years, this may well be remarkable, but that will be because it has somehow, against the odds, survived threats to its integrity. (*Ibid.*, p. 91)

The above passage indicates the general structure of Rundle's explanation of persistence. Suppose some temporal concrete object *O* within EIT's quantificational domain persists from t^* to t , where $t^* < t$. Here is Rundle's explanation of *O*'s persistence through this interval. Once brought into existence, *O* could only *cease* to be in state *S* if either (i) some cause *C* brings *O* out of *S*, (ii) whatever is preventing or inhibiting some cause *C* from bringing *O* out of *S* ceases its preventative activity, or (iii) (a) the maintenance of *S* involves continuous changes, and (b) the causal source of such changes ceases its activity. But no such cause as *C* acted to bring *O* out of existence from t^* to t ; and no such cause as *C* was "waiting in the wings" for some preventative factor to cease its prevention and allow *C* to destroy *O*; and, finally, the mere maintenance of the state of *O*'s *existence* (for at least one temporal concrete object *O*) does not involve continuous changes. Hence, none of (i)–(iii) are met—in which case, one can conclude by modus tollens that *O* will not cease to exist.

But what explains *O*'s *duration* or *continuance through time*? Importantly, there are two ways for *O* to *not* cease to exist: *O* could either exist *timelessly* or else *O* could *persist*. Rundle provides resources for explaining why we have a case of *persistence*:

[T]o explain why something gets older, where this means no more than 'continues in being', is not to give a causal explanation, but to explain what conditions have to be satisfied for a description in these terms to be warranted: you can talk of 'continuing in being' because the changes necessary to make sense of the passage of time have been taking place. We are not

⁴⁸Rundle does say that "in the absence of forces which would bring them to an end, [objects'] continuation from moment to moment is in no need of explanation" (2004, p. 93). Never mind Rundle's precise view; we're concerned with what resources Rundle's reflections provide in explaining persistence. For simplicity, we use "Rundle's explanation" rather than "an explanation that can be gleaned from Rundle's reflections."

to read real changes into the object on the strength of these relations ... There is not, merely by dint of having endured, any feature of the object that needs accounting for; that need arises only with the real changes which might give the measure of its persistence. The object itself is merely co-present with certain of these. Not a change in it, but a mere change in a relation. (2004, pp. 91–92)

Rundle, then, offers a fleshed-out, illuminating, and *prima facie* defensible no-change account. At least some objects persist without causal sustenance because (i) only *changes* of state require causes, (ii) the objects' mere persistence is a state characterized by the *absence* of change, (iii) no sufficiently destructive causal factors have thus-far impinged on the objects, and (iv) the objects change in their relations to constant, repeated changes elsewhere. Even if one disagrees with one or more theses here, if they *were* true, they would surely remove mystery as to why things persist, and furthermore they are at least rationally defensible.

The no-change account from Schmid (2021a, fn. 9; 2021b)—hereafter “Schmid’s no-change account”—is closely related to Rundle’s. The account makes two core claims: (i) existence is a state or condition of stasis or unchangingness, and (ii) states of stasis by their very nature diverge to another state (or no state at all) only when positively disrupted.

The account, as developed in Schmid (2021b), takes its cue from one of Feser’s foremost ways of reconciling mechanical inertia with the Aristotelian-Thomist causal principle (CP), according to which whatever changes is changed (actualized) by something else in a state of actuality. *Prima facie*, CP is incompatible with mechanical inertia, according to which an object can uniformly move from point A to point B without any distinct actualizing cause of said change. One of Feser’s principal ways of reconciling the two treats uniform spatial motion as *stasis* or *unchangingness* rather than as the transition from potency to act. Feser writes:

[P]recisely because the principle of inertia treats uniform local motion as a ‘state,’ it treats it thereby as the *absence* of change.... In this case, the question of how the principle of motion and the principle of inertia relate to one another does not even arise, for there just is no motion (in the relevant, Aristotelian sense) going on in the first place when all an object is doing is ‘moving’ inertially in the Newtonian sense. To be sure, acceleration would in this case involve motion in the Aristotelian sense, but as we have seen, since Newtonian physics itself requires a cause for accelerated motion, there is not even a *prima facie* conflict with the Aristotelian principle of motion. (2013, pp. 239, 250–251)

As Feser points out, the view that uniform spatial motion is a state of stasis seems entirely justifiable. But just as we can understand uniform spatial motion as stasis, we can equally justifiably understand *persistence in existence* as stasis, i.e., an *absence* of change. Indeed, merely persisting in existence is not *change* but rather the *maintenance* of a state of actuality. It is to *remain* some way, not to *become different*. Only *deviations* from something’s state of non-existence or existence count (broadly) as changes (i.e. either coming into or passing out of being).⁴⁹

⁴⁹ In this context, “something’s state of non-existence” does not mean that there is an *x* such that *x* is in a state of non-existence. Instead, it means only that there does not exist an *x* such that *x* is in a state of existence. So, it would be more accurate to say “non-state of existence” instead of “state of non-existence.” For ease of exposition, though, we stick with the latter.

Schmid's no-change account then employs a kind of Principle of Sufficient Reason (PSR) according to which dynamic *changes* of state require explanation in terms of some extrinsic cause or actualization of such a change, whereas *maintenance* or *non-disruption* of a state does *not* require an explanation in terms of some extrinsic cause which keeps the state non-disrupted or maintained. Instead, the maintenance or non-disruption of a state is explained in terms of the very nature of states (stable, unchanging actual conditions which are retained unless positively disrupted) in conjunction with there being no such disrupting factors operative.

Note that this view decidedly *rejects* there being any brute facts concerning the moment-by-moment existence of things. There *is* an explanation of (inertial) persistence; the explanation is in terms of (i) an understanding of persistence as a *state of actuality*, (ii) the very nature of states as a kind of stasis or unchangingness (à la Feser's proposal concerning spatial motion), and (iii) there being (or having been) no sufficiently destructive factors that induce deviations from the state in question (viz. existence).

In summary form, Schmid's no-change account says that persistent existence is a state of unchangingness or stasis. By their very nature, states of unchangingness deviate from their actual condition *only if* there is some positive disruption of their condition. What results is an inertialist-friendly explanation of persistence.

Let's address the following objection to Schmid's no-change account. According to the objection, Schmid's account is inapplicable to substances that are undergoing real (intrinsic) continuous change. If the substance is continuously intrinsically changing, then there is no "state of existence" that can persist from one moment to later ones. Surely the state of existence of a substance includes all its real features. If this state is continuously changing, something external to the substance must then be responsible for the substance's persistence through such a series of distinct real states.

In response, note that Schmid's account doesn't hold that the *total set* of an object's real features comprises the object's "state of existence." Instead, it holds only that the very *being* (existence, actuality) of the object *as such* is a state or condition of stasis. The object's very being or existence is distinct from its continuously changing (accidental) real features, since the object can retain its existence (i.e., persist as one and the same substance) despite the gain or loss of such real (accidental) features. Hence, the very existence or actuality of the object is not the same as the total set of the object's real features. Schmid's account treats this very substantial existence or actuality as a state or condition of unchangingness.

Here's another way to think about it. Consider again the case of mechanical inertia. One of Feser's (2013) reconciliations of CP with mechanical inertia, as we've seen, is to treat uniform rectilinear spatial motion as a mere state or condition of unchangingness. For this reason, Feser claims that mechanical inertia does not involve the kind of dynamism that, according to CP, requires a distinct actualizing cause. But when an object is uniformly rectilinearly moving through space, the object may be undergoing *other*, continuous processes of real change. These would—granting the truth of CP—require a continuously operative actualizing cause. But this doesn't negate the fact that the object is still in a state or condition of

unchangingness *with respect to its uniform rectilinear motion*. And so, in *this* respect, the object does not require a continuously operative cause, though the *other* respects in which the object *is* really changing *do* (or would). And this is precisely Schmid's proposal: although the object may be undergoing a host of real accidental changes (and thus may require continuous causes of such changes), the object is *not* undergoing the kind of real dynamism or change *in respect of its actuality or existence* that would require a continuously operative sustaining cause.

Thus, saying that such continuously occurring real (accidental) changes require causes is crucially different from saying that the very *substantial being* of the object *as such* requires a continuously operative efficient sustaining cause. Those continuous real changes only demand continuously operative causes that merely *modify* the accidental features of the object. But this is entirely separate from the need for an efficient sustaining cause of the entire object's existence at every moment at which the object exists (or on every Cauchy surface on which the object has a part).⁵⁰

A third no-change account runs as follows. For simplicity, we'll assume endurantism and Newtonian or Galilean spacetime. Nothing hangs on this, though—an exactly similar account can be cast in perdurantist and/or Relativistic spacetime terms *mutatis mutandis*. (Again, our goal is not to *prove* or *positively justify* the account; instead, we're simply *articulating* an account that—if true—furnishes an inertialist-friendly explanation of persistence.)

The account is as follows. For temporal concrete object O to *fail* to exist at *t* despite existing during $[t^*, t)$, where $t^* < t$, is for some *change* to occur.⁵¹ But, according to a view that many philosophers find plausible, a change occurs only if

⁵⁰ Here are two further responses. First: the continuous processes of change are only to the object's *accidental* features and thus only require causes that simply modify the object in various ways. But through such accidental changes, the object's *essential* features remain unchanged and intact. And surely it is *this* unchangingness that matters for existential inertia, since the object persists so long as its essential properties remain unchanged and intact. Second: essentially, we could *grant* that no-change accounts are inapplicable to objects undergoing the kind of continuous intrinsic change specified by the objection. But this does not undermine EIT, since EIT only applies to temporal concrete objects *or some subset thereof*. Thus, so long as some subset of temporal concrete objects (at the foundational layer of temporal reality, say) do not undergo the kind of continuous intrinsic change that this objection specifies, then no-change accounts of EIT can avoid the objection in question. Whether or not there *are* such temporal concrete objects is a separate question, of course. But it is a significant result if we have a viable metaphysical account of inertial persistence that applies (or would apply) to such objects.

⁵¹ Of course, it's not as though O undergoes some *alteration* in this process. But still, it is obvious that there is *some* kind of change here, whether in the ontological inventory of what there is, or in the incorporation of what were previously O's parts into parts of something else, or in the passing away of a state (e.g., the state of O's existence), or whatever. If the reader still demurs at our use of "change," we can alter the account to speak of *changes of state* (i.e., cases where some new state comes to be or some old state passes away).

some factor causally induces said change.⁵² A raging tiger or thousands of photons could not merely spring uncausedly into existence in this room right now; raging tigers and thousands of photons would require some cause.⁵³ Moreover, New York, or your house, or this book could not pop out of existence uncausedly. Such changes would require some cause. From this observation, it follows that if no factor causally induces a change, then said change will not occur. Thus, if no factor causally induces O to fail to exist at t despite existing during $[t^*, t)$, then O exists at t . Once we add that nothing came along to causally induce this—that is, once we add that nothing came along to destroy O from t^* to t —it simply follows that O exists at t . Here, we seem to have a perfectly respectable, perfectly legitimate explanation of O's existence at t , and this explanation does not presuppose the prior obtaining of the explanandum (i.e., O's existence at t).

The account above, as stated, needs to be supplemented. For starters, the account is (so far) perfectly compatible with EIT's being false. For suppose that O's persistence requires continuous sustenance from without and that *the absence of sustenance from without* would cause O's cessation. In this case, the absence of sufficiently positively destructive factors operative is not, by itself, sufficient for there being no cause of O's cessation at t . Hence, *pace* the account above, the conjunction <(i) there are no positively destructive factors operative that cause O's cessation at t , and (ii) O fails to exist at t despite existing during $[t^*, t)$ *only if* there is a cause of O's cessation at t > is not sufficient to explain the fact that <O exists at t >. To avert this problem, we add to our account that *absences are not causes*. By our lights, there are no such things as absences, and hence there are no such things as absences that are also causes. (For more on the dialectic here, see Chap. 4.)

Another supplement is in order. For while one might grant that the absence of sustenance from without is not a candidate cause of O's cessation, perhaps the *event* of the withdrawal of sustenance from without could play that role. This will threaten the account in the same way that the consideration about absences did. There are several ways to supplement the account to avert this problem. We might add that

⁵² One of us (Daniel) does not find the claim that all changes require causes plausible. While I agree that we do not observe entities popping into existence without explanation, whether entities require an explanation for their coming into existence, or whether all changes require an explanation, is separate from whether all entities that begin to exist or all changes that take place require a *causal* explanation. We need to distinguish between *nomological* determinism—that is, the view that all events are determined by the laws of physics—and *causal* determinism—that is, the view that all events are determined by prior causes. With this distinction in hand, we can see an alternative explanation as to why tigers or thousands of photons do not appear in my apartment—namely, that their doing so would violate the laws of physics. Nonetheless, the classical theist now faces a dilemma: either the classical theist agrees with the original claim—that no changes occur without an efficient cause for their occurrence—or else the classical theist agrees that some events take place without efficient causes to bring them about. In the former case, our original point stands. And in the latter case, as Grant (2019, ch. 1) points out, under classical theism God is the universal cause of anything, including events, distinct from God. Thus, if, as I claim, some changes might not have causes, so much the worse for classical theism—at least traditionally conceived.

⁵³ The cause might be indeterministic, as when (under some interpretations of quantum mechanics) virtual particles indeterministically arise from prior, law-governed quantum states.

while (some) events exist, *withdrawals* are not among them. (Do we really want to countenance *withdrawals* into our ontology?) Or we might add that there are no such things as *events*. Yes, there are objects, and such objects have, gain, and lose various properties. (Alternatively, they *satisfy*, *begin* satisfying, and *cease* satisfying various predicates.) But are there such things as *events* corresponding to such havings, gains, and losses, *over and above* the objects and properties? It's not obvious, and our account can be supplemented with a negative answer. A final supplement—gleaned from one of the objections from Sect. 4.4—is that there is no annihilating influence that continually acts on objects within EIT's quantificational domain that (i) can only be counteracted by an extrinsic sustaining cause of the objects and (ii) suffices to annihilate the objects when not counteracted. (As we pointed out in Sect. 4.4, this is an eminently plausible supposition, firstly, and secondly, even if one disagrees with it, what matters is that *if* the supposition were true, *then* we would have a workable metaphysical account of inertial persistence. So long as this condition is met, no longer can proponents of classical theistic proofs assert that *under* EIT, persistence must be brute.) There may be other supplements besides, but that suffices for present purposes.

A fourth and final no-change account takes its cue from the inertialist-friendly explanation of persistence we developed in Sect. 4.4. To make things as precise as possible, we'll put the explanation in terms of a deduction:

1. For any non-first time t at which S might exist, if S exists during $[t^*, t)$ such that $t^* < t$, then before t S has the potential to not exist at t and the potential to exist at t .
2. If S has potential p and complement potential p^* , then if there is a causally necessary condition for the actualization of p^* , the absence of that causally necessary condition suffices to explain the actualization of p . (Proposition P from Sect. 4.4)
3. The complement potential of S 's potential to *not* exist at t is S 's potential to *exist* at t . (Definitionally true)
4. So, for any non-first time t at which S might exist, if S exists during $[t^*, t)$ such that $t^* < t$, then if there is a causally necessary condition for the actualization of S 's potential to not exist at t , the absence of that causally necessary condition suffices to explain the actualization of S 's potential to exist at t . (1–3)
5. There is a causally necessary condition for the actualization of S 's potential to not exist at t —namely, a factor that positively destroys S before or at t .
6. So, for any non-first time t at which S might exist, if S exists during $[t^*, t)$ such that $t^* < t$, then the absence of a factor that positively destroys S before or at t suffices to explain the actualization of S 's potential to exist at t . (4, 5)

The explanation here is essentially the combination of proposition P and *Derivation* from Sect. 4.4. To us, the explanation is eminently plausible and explanatorily illuminating.

Once more, the point in developing these various metaphysical accounts of EIT is not to argue that they are *true*. Instead, the point is to show that there are *prima facie* coherent and illuminating explanations of persistence *under EIT*. The aim is not to *persuade* someone antecedently inclined to deny EIT. Rather, the aim is to *fend off* the objection that EIT renders persistence inexplicable. EIT most certainly does *not* render persistence inexplicable, since—as the metaphysical accounts show—there are whole swathes of inertialist-friendly explanations of persistence. Just as one can recognize that the divine sustenance account of persistence, if true, would adequately explain persistence while nevertheless thinking the account is false, one can (and should) recognize that the various metaphysical accounts of persistence, if true, would adequately explain persistence. And this is true even if one thinks such accounts are false.

6.7 Conclusion

We've argued that there are a host of legitimate inertialist-friendly explanations of persistence. We don't claim that each account is on equal epistemic footing. Some are more plausible than others; some are simpler than others; and so on. We simply claim that each offers a coherent, defensible inertialist-friendly explanation of persistence. The accounts can be all-too-briefly summarized as follows:

1. Tendency-disposition accounts, which explain persistence by appeal to some tendency or disposition;
2. Transtemporal accounts, which explain persistence by appeal to some kind of transtemporal relation(s);
3. Law-based accounts, which explain persistence by appeal to laws of nature;
4. Necessity accounts, which explain persistence by appeal either to the necessary truth of EIT (or some other principle(s)) or to some fundamental, necessarily existent temporal concrete object(s); and
5. No-change accounts, which explain persistence by appeal to (e.g.) the thesis that persistence is an *absence* of change.

Within each such family, moreover, there were typically several distinct metaphysical accounts. In addition to developing each account further—and in addition to developing *other* accounts—future research can focus on the comparative theoretical virtues of each account vis-à-vis the others. Future work can also explore the viability of transtemporal accounts in light of the continuity or discreteness of time. We hope that our development and exploration of the above accounts lays the foundation for future work on the metaphysics of existential inertia and the ultimate explanation of persistence. We take up the task of advancing the debate even further in the following chapter.

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Chapter 7

Existential Inertia: Motivations and Defense



7.1 Introduction

Recall the fundamental claim of the Existential Inertia Thesis (EIT): temporal concrete objects (or some subset thereof) persist in the absence of both (i) sustenance or conservation from without and (ii) sufficiently destructive factors acting on the objects. Recall also the structure of persistence arguments: any object of type T—where T could be *temporal*, *changeable*, *composite*, or what have you—requires an efficient sustaining cause for its continued existence. But since the chain of sustaining causes explaining the object's continued existence cannot descend infinitely, the chain must have some non-T object as its primary member—that is, an atemporal, unchangeable, simple, or necessarily existent entity. Friends of persistence arguments go on to argue that this entity is the God of classical theism.

In this chapter, we pursue EIT in depth as a viable response to persistence arguments for classical theism. Before fending off the principal criticisms of EIT in the literature, we will articulate some reasons that *motivate* EIT. We emphasize that positive motivations are not strictly required given the dialectical context of our book. For the dialectical context at hand involves persistence arguments for the existence of the classical theistic God. The onus of justification is on *proponents* of such arguments to *positively show* the falsity of EIT. For if their arguments *rely* on the falsity of EIT but fail to *justify* this reliance, the arguments fail to justify their conclusions. EIT need only be proffered as an *undercutting defeater* to such arguments, and hence positive reasons need not be given for EIT for it to succeed as a defeater. Alas, the case against such arguments is buttressed if there are, indeed, positive reasons supporting EIT.

Let's get clear about the chapter's structure. The motivations for EIT are covered in Sect. 7.2. Therein we sketch a variety of motivations for EIT, including theoretical virtues (Sect. 7.2.1), divine temporality (Sect. 7.2.2), an Aristotelian proof argument (Sect. 7.2.3), a probabilistic argument (Sect. 7.2.4), and a PMC argument

(Sect. 7.2.5). In Sect. 7.3, we fend off the principal criticisms of EIT in the literature, including alleged counterexamples (Sect. 7.3.1), microstructural dependence (Sect. 7.3.2), four arguments from Hsiao and Sanders (Sect. 7.3.3), proportionate causality (Sect. 7.3.4), form-matter interdependence (Sect. 7.3.5), contingent natures (Sect. 7.3.6), vicious circularity (Sect. 7.3.7), the *De Ente* argument (Sect. 7.3.8), and worries from relativity and four-dimensionalism (Sect. 7.3.9).

7.2 Motivating Inertial Persistence

Before motivating inertial persistence, let's remind ourselves of some important facts gleaned from the previous chapters: (i) the inertial thesis quantifies only over a *subset* of temporal concreta; (ii) the inertial thesis only specifies that every inertially persistent object *O* does not ontologically depend on concrete objects *that are not parts of O*; and (iii) there are a variety of legitimate and independently plausible metaphysical accounts of EIT (i.e., inertialist-friendly explanations of persistence). These three facts will also undergird several of our responses in Sect. 7.3 to criticisms of EIT.

With these reminders in place, let's consider some motivations for EIT.

7.2.1 Theoretical Virtues

Before considering EIT's theoretical virtues, let's clarify a prominent rival hypothesis in this dialectical context:

Classical Theistic Sustenance Thesis (CTST): All temporal concrete objects immediately annihilate in the absence of sustenance or conservation from without, such that a necessary condition for their persistence is the continuous sustaining or conserving activity of a timeless God.

We think that EIT enjoys a number of theoretical advantages over CTST. Before considering the first virtue of EIT, however, let's consider the following question: why does anything exist at all? Why isn't reality empty and devoid of all objects? Here is a simple answer: something exists rather than nothing because, as a matter of metaphysical necessity, at least one thing exists. This answer nicely explains why there is something rather than nothing: nothingness is simply metaphysically impossible.

A similar question arises with respect to concrete objects' persistence. Why do objects, once in existence, persist in existence instead of being instantly annihilated or annihilated at random, arbitrary points during their existence? If one affixes a necessity operator in front of EIT, EIT provides a simple answer: objects persist rather than succumb to instant or random annihilation because they do so as a matter of metaphysical necessity (absent causally destructive factors). (Even if one

doesn't affix a necessity operator in front of EIT, certain metaphysical accounts (e.g., objectual and propositional necessity accounts) themselves provide metaphysical necessity as an explanatory avenue. And even for those that don't deliver metaphysical necessity, we've argued that they nevertheless deliver an illuminating explanation of persistence.) This answer, analogous to the one concerning existence *simpliciter*, nicely explains why objects persist rather than being randomly annihilated: the latter is simply metaphysically impossible.

Note that we are here seeking to explain a *contrastive* fact: why do objects, once in existence, persist in existence *instead of* being instantly annihilated or annihilated at seemingly random, arbitrary points during their existence? We are thus contrasting two situations: one in which things uniformly and reliably persist absent sufficiently destructive causal factors, and another in which things annihilate at seemingly random points in their lives without some sufficiently destructive causal factor operative. We claim that the necessary truth of EIT nicely explains why we see the former rather than the latter.

We also claim that the necessary truth of EIT is a clearly satisfactory explanation of this contrastive fact. Consider that defenders of the Principle of Sufficient Reason (PSR) or causal principles variously adduced in cosmological arguments often rhetorically ask, "Why do we witness a uniform, regular, intelligible reality rather than witnessing things randomly popping into and out of existence inexplicably? Why isn't there chaos instead? Why doesn't Beethoven or a raging tiger spring into existence without an explanation or cause?" Friends of the PSR or the aforementioned causal principles have a ready explanation: we don't observe such chaos because unexplained, uncaused occurrences are metaphysically impossible. The (necessary truth of the) PSR or the causal principle (variously construed) provides a satisfying explanation of the uniformity and order we observe in our world.¹

The explanation offered by friends of the PSR or causal principles satisfies one condition on good explanations—namely, removing mystery as to why the explanandum obtains (in this case, why there isn't chaos). And yet the explanation they offer is structurally identical to our EIT-based explanation of the aforementioned contrastive fact. (Just replace "PSR/causal principle" with "EIT" and "chaotically ceasing and beginning to exist" with "chaotically ceasing to exist.") Our explanation therefore removes mystery in much the same way.

Indeed, matters become even more interesting when we perform a probabilistic comparison between CTST and the necessary truth of EIT (hereafter, n-EIT) when it comes to explaining the aforementioned contrastive fact. Let that fact be F. F is the fact that temporal concrete objects, once in existence, persist absent sufficiently destructive causal factors as opposed to being annihilated at other points in their lives when they are *not* subject to causal destruction. Now, under n-EIT understood as quantifying over all temporal concrete objects, the probability of F is 1. That is,

¹Pruss and Rasmussen (2018), for instance, offer an argument along these lines for one of their explanatory principles. We also saw in Sect. 4.4 that Feser (2017) likewise offers an argument along these lines for one of his causal principles.

$P(\text{Fln-EIT}) = 1$. But the probability of F is significantly less than 1 under CTST. That is, $P(F|\text{CTST}) \ll 1$. F therefore strongly confirms n-EIT vis-à-vis CTST.

Why do we say $P(F|\text{CTST}) \ll 1$? Well, CTST fails to make specific predictions concerning the duration over which objects persist. Consider the duration D over which a given object O persists. Supposing that CTST is true, so that God sustains O in existence and consequently decides how long O persists, why would God choose one particular value of D over any other—e.g., why would God sustain an object for n planck seconds as opposed to $n+1$ or $n-1$ (or $n/2$, or $n/10$, or $n/10^{40}$)? This question is particularly pressing for the classical theist. Since God is perfectly free and unchanging, God is never forced or compelled to continue sustaining O or to end O 's existence, and nor does he come to have any moral obligations to O upon creating O . Moreover, under classical theism, God necessarily exists and remains utterly invariant across all possible worlds. Nonetheless, which creatures exist and how long they persist varies from one possible world to another. Since God is invariant from one possible world to another but creatures are not, nothing about God can provide the relevant difference maker that explains variations in creatures from one possible world to another. Thus, nothing about God allows us to predict that, in every observed instance, temporal concrete objects persist unless and until they encounter sufficiently destructive factors. But this is precisely the datum whose probability given CTST we were interested in; if CTST is unable to predict that objects uniformly and reliably persist absent sufficiently destructive causal factors as opposed to being annihilated at other points in their lives when they are *not* subject to causal destruction, then the probability of F given CTST is much lower than 1.

In fact, under CTST, there are *very* many opportunities for an object to *fail* to persist over the course of its life; for every moment (or instant) that an object exists and does not encounter sufficient destructive factors from without, God could withdraw his sustaining power from said object. If time is continuous, then the number of opportunities is infinite. If time is discrete, then the number of opportunities is some overwhelmingly large number. There are two consequences that we can draw. First, if objects do not enjoy existential inertia and require divine sustenance, it's a seemingly incredible coincidence that we never witness objects cease to exist without destructive factors operative. Second, n-EIT—again understood as quantifying over all temporal concrete objects—is an incredibly risky hypothesis given the paucity of opportunities for disconfirmation.

Thus, n-EIT is a simple hypothesis that enjoys confirmation by all known experience and survives a nearly unlimited gauntlet of opportunities for refutation. By contrast, CTST doesn't make specific predictions for the duration over which objects persist—for each moment (or instant) of an object O 's life, it's possible for God to withdraw his sustaining power from O regardless of whether destructive factors operate on O . Given the overwhelming number of such moments (or instants), for any *one* world in which O persists until subject to destruction, there's an *overwhelming* number of possible worlds in which God withdraws his sustaining power from O even in the absence of destructive factors operating on O . And since God remains utterly invariant across all worlds, there is no difference or variance on God's end to which one could point in *any* such world to explain why *it* came about

as opposed to some *other* world. Thus, conditional on CTST, the (epistemic) probability of F seems *very* low indeed.

One might respond that God's *reason* for actualizing one world is *stronger* than God's reason for actualizing another world, and that—even though both such reasons would be present had either world come about—this difference in strength of reasons can nevertheless secure assigning a higher probability (under classical theism) to the claim that the former world obtains compared to the claim that the latter would obtain.

It's not at all clear, however, that the classical theist can take this route. For, plausibly, differences in *truth* require differences in *being*. That is, the following principle is plausible:

Truth Supervenes on Being (TSB): There can be no change or difference in truth-value without some corresponding change or difference in reality, i.e., in what there is.

Before explaining how TSB relates to the above response, let's explain why someone might find TSB plausible.

First, one might argue that TSB is simply obviously true. Suppose in one world, "there are dogs" is true, whereas in another world, it is untrue. Surely, then, there must be some difference in *reality* across such worlds. And that's precisely what we find: in one world, there are fluffy and cuddly canines, whereas in the other world, such canines are absent. The same applies to *changes* in truth (e.g., "there are dogs" goes from false to true, corresponding to fluffy and cuddly canines coming into existence) and other *differences* in truth (e.g., a difference between what's true of different spatio-temporal regions—say, it's true of one spatio-temporal region but not another that it contains a dog).

Second, Koons (2020) argues that TSB is a deeply Aristotelian principle, which is germane to the present dialectical context given that classical theistic proofs are often cast within a broadly Aristotelian metaphysical backdrop. Here's how Koons puts it:

Aristotelians ought to be sympathetic to the TSB principle, since it is what motivates the reifying of accidents. When some substance alters qualitatively or quantitatively, why suppose that some new accident comes into being? Because truth must supervene on being. Moreover, the Aristotelian conception of truth as correspondence provides support for the TSB principle. For a predication to be true is for it to say of what is, that it is, or of what is not, that it is not. Hence, it seems that variation in truth-value depends on what exists and how it is, which is precisely what TSB demands. (Koons 2020, p. 469)²

Third, TSB provides an illuminating and powerful explanation of the difference between ontological and ideological differences between theories (cf. Koons and Pickavance 2017, p. 44), and also allows us to catch metaphysical cheaters.

But how is TSB relevant to the response at hand on behalf of CTST to our probabilistic argument? Well, the response posits a difference in *truth*—namely, different

²For more on the motivation for TSB from the correspondence theory of truth, see Koons and Pickavance (2017, p. 44).

true predications of *reason-strengths* to different *reasons*. But if differences in truth require differences in being, then there must be different *realities* in God corresponding (at least minimally) to the differently-strengthened reasons. But then there are positive ontological items intrinsic to but distinct from God, contra DDS. We conclude, then, that the objection at hand does not succeed.³

From all of the above, we're left to conclude that EIT not only provides an illuminating explanation of F (just as the PSR/causal principle does with respect to the absence of chaotic beginnings and cessations) but also gains substantial evidential confirmation from F vis-à-vis CTST.

EIT also explains why, in our experience, we only see objects cease to exist when some factor impinges on them in a destructive way. This is precisely what EIT predicts: objects continually persist in existence and only cease to exist when some factor destroys them. What's more, EIT seems to provide the best explanation for why we don't observe sustaining causes in the world around us—or if we do, why they are so rare. Consider your present existence. Do you have a sustaining efficient cause?

Perhaps you think oxygen, heat, air, and so on are present sustaining causes of your existence, or that the fact that your computer is three feet above ground is presently causally dependent on the table. "But," notes J.H. Sobel,

I am dependent on these things only eventually for my future existence ... Take away oxygen and I am dead, not now, however, but only shortly. Take away heat from my environment, plunge it to absolute zero, and I am gone more quickly, but again not immediately. Take away the sun, and the heat, most of it hereabouts continues for eight minutes or so, so the sun is no part of its efficient sustaining cause. Oxygen and the like are at best not sustaining, but *perpetuating*, and so not necessarily *concurrent* efficient causes of people. (Sobel 2003, p. 177)

If oxygen, heat, and so on were sustaining causes of your existence, then you would instantly die in their absence. But upon removing oxygen, heat, and so on, you do not die instantly but only after a short period of time. Therefore, oxygen, heat, and so on are not sustaining causes of your existence. Keep in mind, moreover, that EIT only denies (for objects within its quantificational domain) conservation or sustenance *from without*. Hence, the fact that you are dependent on certain components of yours, e.g., your brain, your bones, the blood and sugar and lipids in your body, the oxygen in your lungs, etc., is irrelevant. In fact, the only reason why removing oxygen from the external environment will eventually result in your death is that removing the oxygen from your environment facilitates the absence of oxygen *within* you, which in turn facilitates cell death *within* you. In turn, *cell death* kills

³Reason-based action also poses a problem for classical theism insofar as it seems to entail—contra DDS—dependence relations among distinct positive ontological items within God. For a defense of this sort of argument, see Schmid ([Forthcoming](#)). See also Saenz (2021) for a similar argument against DDS that Saenz dubs “the problem of dependent intrinsics.”

you. But we have already seen why your dependence on factors *within* you is perfectly compatible with EIT.⁴

In fact, even if oxygen *were* a sustaining cause, it's not at all clear whether anything external to oxygen causally sustains it in being. (Note that the covalent bond holding the two oxygen atoms together is *within* the oxygen molecule and consists in the sharing of electrons therein.) So even if we *could* pinpoint a few examples of sustaining causes of existence, they are rare. Finally, the causal activity of the table is nothing to the very *existence* of your laptop. The table does not sustain your laptop as an efficient cause of its very being. This example, then, also fails. Moreover, as we saw in Chap. 6, there are strong reasons for thinking that physical objects cannot have sustaining causes in their physical environment *simultaneous* with said physical objects. In orthodox relativistic physics, there is no such thing as two objects existing together at objectively contiguous spatial locations at objectively the same time. Overall, we seem to lack good experiential reason to affirm the existence of sustaining causes of existence—precisely what we would expect if EIT were true (at least assuming a version of EIT with a wide quantificational domain).⁵

EIT also makes good sense of our ordinary, everyday explanatory reasoning as well as our scientific reasoning. For example, why does a banana remain on the table (and in existence) from yesterday to today? A characteristic answer offered in everyday life might be: (i) the banana was on the table yesterday, (ii) no one moved the banana off the table, and (iii) nothing destroyed the banana. This seems like a perfectly adequate explanation, and the explanation tacitly includes the assumption that the banana persists in existence so long as nothing destroys the banana. We rarely cite (or even see any need of citing) sustaining causes of existence to explain why objects persist. EIT seems to make the best sense of such explanatory practices. For if objects genuinely *would* utterly annihilate absent external sustenance, any sufficient explanation would plausibly have to take such causal sustenance into account—and the fact that we *seem* to provide adequate explanations without adducing such sustenance is defeasible evidence that we *do*, in fact, provide such explanations and hence is defeasible evidence favoring EIT over CTST.

⁴Another way to see this is to imagine that while all the oxygen in your surrounding environment is removed, there is nevertheless some continual source of oxygen within you. (Perhaps your lungs acquire a new ability to generate oxygen anew.) In this scenario, you simply *wouldn't die* despite the utter absence of oxygen in your environment. This shows that it is the status of factors *within* you upon which you are dependent in this case, *not* factors *outside* of (external to, extrinsic to) you.

⁵One might object that CTST likewise predicts a dearth of observational evidence for sustaining efficient causes, since—so the objection goes—the power to sustain something in existence could only be had and exercised by God. Such a power is an incommunicable divine attribute. In response, we note that this is not entailed by CTST *as such*. Instead, it is an *auxiliary hypothesis* that must be *added* to CTST. Thus, while one might add it to CTST to predict the data at hand, doing so lowers CTST's intrinsic probability. (Even if one disagrees and thinks that the incommunicability thesis here *is* entailed by CTST, we still have a dearth of observational evidence of *instrumental* sustaining efficient causes in chains of efficient sustaining causes. And surely creaturely *instrumental* sustenance is not debarred by CTST. Our broader point, then, stands.)

Furthermore, a key determinant of intrinsic probability is *simplicity*. And, indeed, EIT enjoys both quantitative and qualitative simplicity (and enjoys them far better than CTST). For one thing, CTST requires a categorically different kind of causation in our ontology, namely, sustaining causation. EIT does not require sustaining causation. For another, CTST requires a categorically different kind of being in our ontology, i.e., at least one timeless being that sustains temporal entities in existence. CTST is thus committed not only to all the temporal entities EIT is committed to, but CTST also includes additional entities (a timeless entity), more kinds of causation (sustenance or conservation from without, as well as timeless-to-temporal causation), and more fundamental (i.e., irreducible) kinds of entities—reality is fundamentally divided at least into timeless/immutable concrete things and temporal/mutable concrete things, with all the attendant primitive/undefined vocabulary and theoretical characterizations and principles needed to describe each kind of entity. This makes CTST much more theoretically complex than EIT and hence much less intrinsically probable.⁶

Overall, EIT explains and unifies a whole host of disparate phenomena: (i) why objects persist instead of being annihilated at seemingly arbitrary points, (ii) why objects cease to exist only when causally destroyed, (iii) the dearth of observational evidence of sustaining causes, and (iv) the legitimacy of ordinary and scientific explanation. EIT is also far simpler than CTST. At least with respect to the data of persistence, then, EIT is superior to CTST on account of explanatory breadth, explanatory depth, and simplicity.

7.2.2 *Divine Temporality*

Another motivation for EIT derives from divine temporality. For if God is temporal, then there is at least one temporal concrete object that persists in existence without sustenance or conservation from without (and, trivially, without being destroyed). We don't have space here for a full defense or justification of divine temporality. Instead, we first simply note that the various arguments in favor of divine

⁶Note that when we speak of fundamental kinds of things in the context of theoretical virtue comparison, we simply mean kinds of things that are not analyzable in terms of or reducible to other kinds of things. This is a separate issue from one such fundamental kind of thing (e.g., temporal things) standing in a causal dependence relation to another such fundamental kind of thing (e.g., a timeless thing or things).

temporality are *ipso facto* arguments for EIT (for some such arguments, see Mullins 2016b and Craig 2001).⁷

Second, we will briefly sketch one such argument for divine temporality and respond to some objections thereto. The purpose is to give the reader an idea of the *kind* of argument for EIT based on divine temporality. Diving straight into the premises:

1. There is change.

This premise, we claim, is manifest and evident to the senses.

2. If there is change, then some proposition or sentence *p* goes from being true to being false (or vice versa).

If there is change—e.g., water’s going from a liquid state to a solid state—then the proposition or sentence <the water is liquid> goes from being true to being false. And the proposition or sentence <the water is solid> goes from being false to being true.

Admittedly, premise (2) is only true if a tensed theory of time is true. If a tenseless theory of time is true and God is not located at any time, then God tenselessly knows the contents of time—God knows that (say) *p* is true at *t* and that *~p* is true at *t**, and there is nothing else God would need to know in order to know all the truths that there are. Nevertheless, we find the argument convincing *if* a tensed theory of time is true (and *if*, of course, God exists).⁸ Moreover, note that, on an orthodox understanding of relativity, there are no universal or absolute moments of time, and so nothing corresponds to the *t* variable apart from adopting a particular reference frame. But, plausibly, God does not occupy a reference frame. This illustrates that the argument *as stated* is best understood conditional on a tensed theory of time that reinstates (something like) absolute time. But the argument can be *restated* in terms friendly to tensed theories of time that jettison absolute time (e.g., Fine’s (2005, 2006) fragmentalism or some interpretations of causal set theory). So long as tense is taken metaphysically seriously, the problem of changing divine knowledge remains. In other words, so long as tense is taken metaphysically seriously, *some facts will genuinely come to be or pass away*, and as we will explain in our discussion of premise (3), this implies that God will genuinely come to have or come to lose knowledge of said facts.

With that, let’s shift to premise (3):

⁷Another argument for EIT—one we shan’t pursue beyond this footnote—is that the denial that temporal concrete objects (or some subset thereof) persist inertially will ultimately have to admit a timeless sustaining cause of temporal reality or some portion thereof (lest one admit infinitely descending chains of sustenance from without). But—so the argument continues—a sustaining causal relation cannot obtain between a timeless, immutable being and the temporal world. This latter claim has been defended by (*inter alia*) Fales (1997), Rundle (2004, ch. 4), Mullins (2016b, ch. 5), and Craig (2001, ch. 3).

⁸The argument, then, is a *conditional* argument for EIT—conditional, that is, on the conjunction of (i) God’s existence and (ii) a tensed view of time.

3. If some p goes from being true to being false, then God goes from knowing p to *not* knowing p .

Premise (3) follows from God's existence, God's omniscience, and the *factivity of knowledge*. Knowledge is factive—one can only know that p is true if p is, in fact, true. One cannot know p if p is false. For example, $\langle 1 + 1 = 2 \rangle$ is true, and because $\langle 1 + 1 = 2 \rangle$ is true, someone cannot sensibly be said to know that $1 + 1$ is not 2.

This entails that if p genuinely goes from being true to being false, then, once p is false, one cannot know p . For if one still knew p , then since knowing p presupposes p 's truth, p would have remained true. But, *ex hypothesi*, p changed in truth value and hence did not remain true. Thus, if some p goes from being true to being false, then God goes from knowing p to not knowing p . (In particular, when p goes from being true to being false, God goes from knowing p to knowing $\sim p$.) Now onto the next premise:

4. If God goes from knowing p to *not* knowing p , then there is succession in God's life (and, moreover, God has potential to acquire knowledge).⁹

This is surely just what succession means—to go *from* one thing *to* another. It's also just what *potential* means—God has the potential, here, to acquire knowledge God did not already possess.

5. If there is succession in God's life (and, moreover, if God has potential to acquire knowledge), then God is temporal.

This is part and parcel of temporality—anything whose life involves succession enjoys a *before* and *after* (and hence temporality).

6. If God is temporal, EIT is true.

EIT is true just in case at least one temporal concrete object persists in the absence of both external sustenance and destruction. God, if temporal, is a temporal concrete object that persists in the absence of both external sustenance and destruction. So EIT is true if God is temporal.

7. So, EIT is true. (1–6)

Let's consider some responses to this argument. One response, of course, is to simply adopt a tenseless theory of time, such as four-dimensionalist eternalism. This would, indeed, avert the argument. But how might proponents of tensed views of time respond?

⁹We don't (necessarily) mean to imply successive, *intrinsic* differences by "succession in God's life." When we say "there's succession in God's life," we mean that God exists at different moments related by *earlier than* and *later than*—God's whole life, so to speak, can be divvied up into earlier and later "phases," even if God is *intrinsically* unchanging across them. (It's similar to how (say) a quark might remain intrinsically unchanged but nevertheless undergo succession—suppose it simply lives ten successive seconds despite being intrinsically unchanged. In virtue of *what* is there succession in the quark's life? Plausibly, it's because the quark undergoes various *extrinsic changes* in the sense of gaining or losing relational properties borne to things *ad extra*.)

Response One. The relevant change in God's knowledge is *extrinsic* to God—there's no change concerning things *in* God or *on God's end*—the only changes here are changes *in creation*. But extrinsic change is entirely compatible with divine timelessness.

Reply. Recall that S changes extrinsically just in case S gains or loses some relation to something outside S. To extrinsically change, in other words, is to transition or go *from* standing in relation R *to* not standing in relation R to something *ad extra* (or vice versa).¹⁰ But there seems to be no way to understand this *from-to* schema without temporality. If S undergoes absolutely no succession whatsoever (as is required by timelessness), then S doesn't go *from* anything *to* anything; S possesses all S ever has in one single, timeless "now."¹¹

Another way to think of this line of reasoning is that if S is timeless, then if F is truly possessed (or lacked) by S, then S is (or lacks) F *simpliciter*. (Where "is" is the *tenseless* sense . . .) And since change requires going from having (or being) F to lacking F, one can conclude that any timeless entity—if that entity were to go from having F to lacking F (or vice versa)—would both have F and lack F *simpliciter*, which is absurd. Hence, nothing that is timeless can go from having F to lacking F, for any feature F (whether intrinsic or extrinsic).

Here's another way to appreciate this line of reasoning. Suppose *being made of such-and-such atoms* is an intrinsic property. Curiously, one thing can be made of a collection of atoms C and *not* made of C (e.g., one organism is made of a collection of atoms C but also made of a collection of atoms C*, where C and C* share no atoms in common). How can this be? Surely nothing can be both made of C and not made of C, for that's a contradiction.

Philosophers have come to see that an object can be both made of C and not made of C so long as the object doesn't satisfy both of these *at one and the same time*. *Distinct times* resolve the contradiction.¹² How we unpack the possession of intrinsic properties at different times is another question, of course. For now, the recognition that distinct times are needed to avert the contradiction suffices.

¹⁰At least for the purposes of this section, we will understand *change* within the context of a *tensed* theory of time. The reason for this, again, is that our argument is conditional on a tensed view of time.

¹¹For details about this single, superabundant timeless "now" in which the classical theistic God possesses the fullness of his life, see Mullins (2016b, ch. 3).

¹²Even if we were to posit distinct logical moments (or some other distinct stages) of S's life to avoid the contradiction rather than distinct times, this wouldn't be open to the classical theist, since numerically distinct stages in the life of an absolutely simple being cannot exist (whether they be logical/metaphysical, temporal, or whatever). (See Muller (2017, ch. 4) for an explication of Scotus's appeal to distinct logical moments in the life of God.) As Dolezal notes, the traditional DDS is articulated principally as a flat denial "that [God] is physically, *logically*, or metaphysically composite" in any way (2011, p. 31, emphasis added).

But there is a parallel problem of temporary, incompatible *extrinsic* properties, for S cannot both stand and not stand in relation R. But if S extrinsically changes, then S truly stands in R and S also truly does *not* stand in R. To avoid contradiction, we need something that demarcates S's standing in R from S's not standing in R. And the only candidate seems to be *distinct times* at which S stands in R and S does not stand in R (respectively).¹³

The only other option seems to be that S stands in R in some timeless respect while S does not stand in R in some *other* timeless respect. But this won't do, since we're talking about S's standing in R *simpliciter*, not merely standing in R in one respect but *not* standing in R in another respect. That is, we're talking about extrinsic change in the sense of going from standing in R *simpliciter* to not standing in R *simpliciter* (or vice versa).¹⁴ Otherwise, there simply *wouldn't be change* in the tensed sense thereof; the thing would just timelessly and statically stand in such relations but merely in different respects. Distinct times therefore seem to be the only way to resolve the problem—at least under a tensed view of time.

It's also eminently plausible that extrinsic change—that is, acquiring or losing a relational property borne to something *ad extra*—requires temporality. Such changes need not involve *intrinsic* change. A father might become shorter than his son solely because *his son has grown*. But even in such cases, the subject of the extrinsically relational change is *temporal*, since the subject can only gain or lose the relational property if there are distinct moments *m* and *m** of its life at which the relational property is had and then lacked (or vice versa). For instance, it is *precisely because* the father is temporal that the father can at *one* point be *taller* than his son and then, at a *later* point, be *shorter* than his son. The father couldn't be both *shorter* and *taller* than his son at one and the same time (or one and the same timeless “now”).

Note that many scholars similarly agree that extrinsic change is foreign to a timeless being. These scholars argue that extrinsic change temporalizes the being undergoing said change. (See, *inter alia*, Mullins (2016a, p. 327; 2016b, pp. 47–51; 2021, p. 87), Moreland and Craig (2003, pp. 526–527), and Craig (2001, p. 61), as well as the references in each of the preceding.)

¹³ Another option is to relativize or index S's standing in R *to times*. Remember, though, that we're talking about extrinsic change understood through the lens of a *tensed* view of time, which will involve objects gaining or losing relational properties *as such*—without such relational properties being indexed to times. We do this, again, because such a view of time is the backbone of our argument. (This indexing of R to times ultimately amounts to a version of the “standing in R in *one* respect while not standing in R in *another* respect” response we already addressed.)

¹⁴ In particular, we're talking about God going from knowing *p* (*simpliciter*) to *not* knowing *p* (*simpliciter*).

So, in reply to Response One, we contend that if God's knowledge changes, then God isn't timeless.¹⁵ For there are two options for such a change: the change is either intrinsic or extrinsic. But intrinsic change is anathema to DDS, since God is necessarily and essentially identical to anything intrinsic to God, and hence God cannot undergo any intrinsic changes. Since God is identical to anything intrinsic to God, if anything intrinsic to God changed, then God would cease to exist, which the classical theist regards as impossible. But nor can the change be extrinsic for the reasons articulated above. Hence, whether the change in knowledge is intrinsic or extrinsic, God isn't timeless.

Note, moreover, that this line of reasoning—if successful—rules out extrinsic models of divine knowledge (cf. Grant 2012) as a response to the argument on behalf of classical theists.¹⁶ Grant's three extrinsic models of divine knowledge—if they were to be applied across times instead of worlds—appeal to: (i) God's belief relations change to track the changing truths/facts; (ii) God's relation of immediate awareness changes to track the changing truths/facts; and (iii) God's causal relation—which is inherently cognitional—changes to track the changing truths/facts. For even if God's knowledge is (extrinsically) relational, we've encountered good reasons for rejecting the compatibility of extrinsic change and timelessness.

Alternatively, one might adopt a more radical extrinsic model of divine knowledge on which the *only* changes in question are *wholly* outside God—not only is there no intrinsic change in God, but there's also no change in God's *relation* or *connection* to the changing facts outside God. But surely this is not an instance of God's *knowledge* changing; it's just an instance of the facts "*out there*" changing. We find baffling the idea that *God's* changing *knowledge* (and *beliefs*) could consist wholly in the facts entirely "*out there*" changing—not even accompanied by changes in God's *connection* to those facts!

Another problem for this more radical extrinsic model is as follows. Consider Schgod. Schgod is qualitatively identical to the classical theistic God *except* that Schgod only knows necessary, unchangeable truths.¹⁷ Schgod is thoroughly unaffected by contingency and changeability, so much so that Schgod is only aware of (and only knows) necessary and unchangeable things. Schgod doesn't know contingent, changeable things and, indeed, is *incapable* of knowing them. Nevertheless, Schgod is pure, undifferentiated actuality; Schgod is numerically identical to

¹⁵The classical theistic tradition has been well-nigh uniform in explicitly rejecting the possibility that God's knowledge changes. See, e.g., Boethius (1969, bk. V, ch. VI), Augustine's (1958) *City of God* XI.21, Augustine's (1991) *The Trinity* XII.10 and XV.13.22, Lombard's (2007) *The Sentences* I Dist. XXXIX, Aquinas's (1955) *Summa Contra Gentiles* (I, ch. 66), Aquinas's (1952) *De Veritate* QII.12.ad4, More's (1668) *Divine Dialogues* (First Dialogue, 60), Charnock (1874, Discourse V), Rogers (2000, p. 46), and so on *ad nauseam*. Of dialectical importance is that Feser explicitly agrees: if God "would constantly be acquiring new pieces of knowledge, such as the knowledge that *it is now time t₁*, the knowledge that *it is now time t₂*, and so forth", then "this would involve change", however "God is immutable" and so cannot change in that manner (Feser 2017, p. 200).

¹⁶See Schmid and Mullins (2022) and Schmid (2021a) for criticisms of such extrinsic models.

¹⁷This isn't far off from Aristotle's conception of the purely actual, unmoved mover.

everything within Schgod across all worlds; and Schgod is absolutely simple. In extramental reality, there is only the one, absolutely necessary, simple, ungrounded Schgod.

Now, what makes Schgod different from the classical theistic God? What, in other words, *explains* their difference? Classical theism (and, more specifically, this “radical extrinsic model” of divine knowledge) seems to debar any answer to this question.

Imagine two worlds, each of which are identical except that Schgod is in one whereas God is in the other. It seems that by classical theism’s own lights, in extramental, non-linguistic, non-predicative reality, these two worlds are utterly (qualitatively) identical. There is no difference between them. On the part of God/Schgod, there is only a single, absolutely simple, necessary act—none of God’s intrinsic *or* extrinsic features change as God gains and loses knowledge of the contingent, changeable realm. Similarly, no such features of Schgod change as the contingent, changeable realm changes. It seems, then, that the difference between Schgod and God is inexplicable—there is nothing in reality *in virtue of which* Schgod and God can be differentiated from one another. The only difference is a *predicative difference*—that is, a mere difference in our *predications* of changing knowledge to the two beings. But there exists nothing to ground, explain, or account for such differences.¹⁸

As a final response to the radical extrinsic model move, it’s not at all clear that the model avoids the problem of temporary, incompatible extrinsics. Such a radical extrinsic model *grants* that we can truthfully predicate knowledge of the changing world to God. But then we can truthfully predicate of God things like *knows that there are non-avian dinosaurs* and *knows that there are no non-avian dinosaurs*. But these predications are incompatible with one another, and—as argued above—there’s no clear way to avoid contradiction without introducing a *before* and *after* in the life of God.

One might respond by distinguishing between *logical* relational and *real* relational change. The contemporary literature includes diverse articulations of the distinction between real and logical relations. Some authors suggest that *x* (merely) *logically* changes just in case there’s a mere change in how *we* conceive of *x*; nothing in extramental reality concerning *x*—i.e., neither a polyadic relational feature *x* bears to something else, nor a monadic intrinsic feature *x* has in itself—changes. This understanding of (mere) logical change corresponds to how we’ve used “Cambridge change.” By contrast, such authors hold that *x* *really* changes just in case there is a genuine gain or loss of features, in some way or another, in the life of *x*. In other words, in extramental reality, *x* gains or loses some feature, whether intrinsic or extrinsic. Still other authors offer distinct articulations (cf. Henninger

¹⁸ It won’t do to say that what explains it is that God is omniscient while Schgod isn’t, since (i) that is to *describe*, linguistically or predicatively, the difference between them, not to pinpoint *that in virtue of which* they’re different, and (ii) the *very question at issue* is whether God counts as omniscient *in the first place* in light of the Schgod example, and hence it seems circular to appeal to omniscience at this juncture. (On this last dialectical point, see Schmid and Mullins 2022.)

1987)—e.g., sometimes *real* relational change is understood to imply some *intrinsic* difference or variation on the part of the entity which really relationally changes. With the distinction between logical and real relations in hand, one might object that God's changes are only ever *mixed* relational changes (such that God merely logically changes whereas creation really changes).

However, considerations of mixed relations are orthogonal to our argument. First, our argument can work with the following thesis: For any knowing subject S, S's going from knowing *p* to knowing *~p* does not consist *merely* in changes in features belonging to things wholly outside of (wholly disjoint from, entirely apart from, utterly external to) S, i.e., changes such that no feature within S, *nor* any polyadic relational feature S has, changes. The support for this thesis is variegated, but one approach is intuition: obviously, that S's going from knowing Pluto doesn't exist to knowing that Pluto exists couldn't *merely* involve the facts wholly "out there" changing (e.g., Pluto coming into existence), *not even accompanied* by any change in S's relation or connection to said facts (where "relation," again, signifies some polyadic relational feature S bears to said facts or—if one is inclined to a medieval view—an inherent monadic property that "points toward" the other relatum—cf. Brower 2018). Another approach is the objection from rendering the difference between God and Schgod inexplicable. Second, as with the radical extrinsic model, it's not clear how appealing to mixed relations avoids the problem of temporary, incompatible extrinsics. So long as we grant that we can truthfully predicate changing knowledge of the changing world to God—such as *knows that there are non-avian dinosaurs* and *knows that there are no non-avian dinosaurs*—the problem remains. Overall, then, mixed relations do not save divine timelessness.

Response Two. The argument assumes that God's knowledge is propositional. But classical theists are well within their epistemic rights in denying this assumption. Aquinas (1955), for instance, seems to deny that God's knowledge is propositional (*Summa Contra Gentiles* I, ch. 58).

Reply. While the argument was originally cast in terms of propositional knowledge, this is inessential. All the argument requires is that God knows *p* in *some* form or other. If God knows *p* in some form or other (even non-propositionally—e.g., God is acquainted with *p*'s worldly correlate), and if *p* genuinely goes from being true to being false, then God's non-propositional knowledge must likewise change. Suppose, for instance, that God knows temporal facts by *acquaintance*, not propositionally. Even so, one can only be acquainted with *x* itself if *x* exists. If *x* doesn't exist—if *x* is precisely nothing—one cannot be *acquainted* with *x*. For example, one cannot be acquainted with Narnia, a unicorn, or a square circle.¹⁹ (This is not to deny that one can be acquainted with the *idea* (or perhaps the *essence*) of Narnia, a unicorn, or a square circle.)

¹⁹ Acquaintance is just an example to illustrate the general point concerning non-propositional knowledge. We're not attributing this account to the classical theistic tradition.

More fundamentally, knowledge is factive *regardless* of whether the knowledge is propositional. And since, under tensed views of time, the facts *themselves* change, it follows that God's *knowledge* changes. And this is true regardless of whether the knowledge is propositional.

Response Three. While a tensed theory of time may hold true from the perspective or frame of reference of creation, perhaps a tenseless, four-dimensionalist theory of time is true from God's perspective or frame of reference. For God, all times are equally actual—all times are present to God in timeless eternity.²⁰ Hence, God's knowledge need not change in order for God to be omniscient, since God simply unchangingly knows all tenseless truths about the times that are present to God (i.e., all times).

Reply. First, this response endorses an intuitively implausible view according to which whether or not something exists is relative to perspective or reference frame. But, plausibly, facts about what exists are not relative to perspective or reference frames; entities either exist or do not, *full stop*. There seems to be no *existence-for-me* or *existence-for-you* (or even *existence-for-God*); there's just *existence*. While not strictly incoherent (at least on its face), adopting frame-relative existence would at least provide *evidence* against divine timelessness given the deep intuitive implausibility of such a fragmented reality.²¹

Second, suppose that all times *do* exist for God. Then, plausibly, concrete objects—from God's perspective or frame of reference—persist by having *temporal parts* at each time between their earliest and latest temporal boundaries. In that case, though, worm theory or stage theory (or some other perdurantist account) is true from God's perspective. But then all the arguments against these views of persistence—because they are perfectly general, applying whether or not the persistence in question is true *simpliciter* or just true from God's perspective—similarly afflict the suggestion in Response Three.²²

Brian Leftow (2018) develops one way that the response at hand might work. Leftow employs the notion of (two) *Discrete Times (DT)*, meaning that there are two series of events (labeled '1' and '2') such that there exist temporal relations *within* (wholly intrinsic to) each such series but *no* temporal relations *between* them. (Note

²⁰ For proposals along these (or similar) lines, see Leftow (2018), Leftow (1991, pp. 230–235), Stump and Kretzmann (1981), and Stump (2003, pp. 131–158).

²¹ Many philosophers of time agree with this assessment, as evinced by one standard argument against presentism based on Special Relativity. For according to the orthodox interpretation of Special Relativity, simultaneity is relative. But conjoining Special Relativity and presentism would then entail that what exists is relative. The fact that many eternalists and presentists alike treat this as a notable problem for presentism suggests that, for many philosophers, the view that reality is somehow radically relative is a bridge too far to cross.

²² Such arguments are typically based on the nature of persistence, or consciousness, or moral responsibility, or what have you. (For a defense of some such arguments, see Craig 2000.) These will equally apply to perdurantism-from-God's-point-of-view.

that Leftow is concerned with the *possibility* of DT.) In considering some object O that (solely) exists in 1, Leftow presents a line of reasoning with an interesting result:

[I]t turns out that in 2, O's existence is tenseless. In 2, there just are no 1-tensed facts... . So in 2, 1 just is not metaphysically tensed. The metaphysical differences in 1 which 1's tenses mark within 1 are not there in 2. Thus if there were two presentist Times, the metaphysically significant tense of each would be strictly internal to itself. It would be real within the Time, but not from without. Further, if there can be two Times, tense is in fact real only internally, even if there is no second Time. (2018, p. 188)

Leftow then employs this account of DT as a response to the changing knowledge argument against divine timelessness:

All this yields a response to the omniscience argument. That argument supposes that it is (say) now noon both in time and for God, outside time. But if possibly DT, such metaphysically-tensed facts are facts only within Times... . For at His standpoint, it is not now noon, and one cannot expect God to know what is not true at His standpoint. (2018, p. 189)

For purposes of space, we will not evaluate Leftow's proposal here. (Though, we note that our two previous responses—about the unintuitive fragmented nature of such a reality and the objections to perdurantism—seem equally to apply to Leftow's proposal.) We *will* argue, however, that Leftow's proposal may cut *against* classical theism on a different front. For one core commitment of classical theism is that God is the sole ultimate reality from which all else derives its being. As Kerr (2019) points out, for Aquinas (and, we add, other thinkers in the tradition) God “is the unique subsisting source of being from which all existing things come” (p. 15), and creation is understood with “God as primary source of all things without Whose creative activity there would be nothing” (p. 44). Anything apart from God has its being sourced in God's creative activity. (See also Grant (2019, ch. 1) and Bergmann and Brower (2006).)

So, even though God cannot possibly know the genuinely dynamic facts that are wholly intrinsic to the temporal order (since—per Leftow's argument—they are only facts *within* such a temporal order and not outside it), nonetheless, such facts within the temporal order must derive their existence and character (including their being solely “intratemporal facts”) from God. *Any* positive ontological item distinct from God has no being apart from God's creative bestowal of being to that item.

What follows from this, then, is that while God causes or grants being to such intra-temporal facts (*including* their status as facts *only within the temporal order* and not within God's order/standpoint), God nevertheless does not *know* them (since the intratemporal facts are *not* in fact true from God's standpoint but are only true within the temporal order). This may be fine for those *outside* the “Big Four” classical theist tradition as we've characterized it, but, for those within the tradition, it is at least *prima facie* problematic. For then God's causality extends to something—the intratemporal facts—to which God's knowledge does not extend. Consequently, something is true of God's causal power that *isn't* true of God's knowledge—in which case the two cannot be identical. But that contradicts DDS,

according to which God's knowledge, power, attributes, actions, essence, existence, etc. are all identical with one another and with God.

So, while Leftow's response may be open to those who don't accept (traditional understandings of) the Big Four, Leftow's response may create new problems for those who *do* accept the Big Four.

7.2.3 *Aristotelian Proof Argument*

Yet another argument for EIT derives from the line of reasoning developed in Chap. 4. Feser provides several arguments and considerations in favor of his Aristotelian proof's causal principle (CP). According to CP, no potential can be actualized unless something already actual causally actualizes that potential. We argued in Chap. 4, however, that CP plausibly entails EIT. We thus have an argument for EIT:

1. If CP is true, EIT is true.
2. CP is true.
3. Therefore, EIT is true. (1, 2)

For justifications of each premise, see Chap. 4. (Note that—rather than taking a stance on CP—we simply grant its truth for purposes of this argument.)

7.2.4 *Probabilistic Argument*

We explained the probabilistic argument for EIT in Sect. 7.2.1, but it's a distinct argument for EIT in its own right. We include a briefer version here in order to highlight the probabilistic argument as a standalone argument. Note that this is a brief sketch; much more can be said on its behalf. Recall F: temporal objects, once in existence, uniformly and reliably persist absent sufficiently destructive causal factors as opposed to being annihilated at other points in their lives without being subject to causal destruction. Importantly, under the n-EIT, the probability of F is 1. In other words, $P(F|n\text{-EIT}) = 1$. But the probability of F is significantly less than 1 under CTTS. In other words, $P(F|CTST) \ll 1$. And hence F strongly confirms n-EIT vis-à-vis CTST.

Now, one might object that the proponent of CTST—following Oderberg—can adopt a view on which temporal objects have a natural tendency to persist, which is nevertheless ultimately dependent upon God. Call this view the Theistic Natural Tendency (TNT) view. On the TNT view (the objection continues), the probabilistic argument fails. For while God could in principle annihilate any given temporal object at any given time, doing so would count as a suspension of the natural order and hence a miracle. By definition, miracles are improbable. Hence, like n-EIT, we would be far more likely to observe things persisting in existence in the absence of destruction.

We have four replies. First, adopting the TNT view seems to do significant damage to persistence arguments for classical theism. For the TNT view *grants* the central contention of (some versions of) tendency-disposition accounts of EIT—namely, that things by nature tend to persist. If we grant this central contention, then—plausibly—we have a readily available inertialist-friendly explanation of persistence. Why posit anything else to explain persistence if we already have—as this objection seems to grant—a workable tendency-disposition account? The objection, then, undermines persistence arguments for classical theism.²³

Second, the TNT view’s posit—that there is a natural tendency to persist—is not entailed by CTST *as such*, and hence positing such a tendency represents an auxiliary thesis that lowers the probability of the hypothesis. Thus, greater expectation of the data is gained only at the expense of lowering the hypothesis’s probability.

Third, even *granting* the objection’s central point about the miraculous (and hence improbable) nature of God withdrawing God’s sustenance, this won’t completely close the gap between the P(F|CTST) and P(F|n-EIT), and hence n-EIT still garners *some* evidential confirmation vis-à-vis CTST from F. For by the objection’s own lights, the probability of O’s cessation at *any* given moment—in the absence of destruction—is still *non-zero*, and this is all we need to get at least *some* evidential confirmation for n-EIT vis-à-vis CTST. (Things only get worse for CTST when we consider that there are boatloads of such moments in O’s life, and boatloads of objects like O.)

Finally, the objection’s inference from “temporal objects have a natural tendency to persist” to “it would therefore be miraculous (and hence improbable) for God to remove his sustenance” is a non-sequitur. After all, many classical theists think things have a natural tendency to expire (in the sense that things are disposed to cease to exist when a certain manifestation condition (say, removal of divine sustenance) is met). And yet this clearly doesn’t imply that objects’ persistence is a *miracle*. Moreover, (i) many features of objects are “non-natural” in the sense that the objects in question naturally have different, incompatible features, and yet (ii) this does not (typically) involve any *miracle*. Consider, for instance, that there is a sense in which humans are naturally two-legged.²⁴ But nearly all instances of zero- or one-leggedness in humans are *not* miracles. This point generalizes to *any* physical, genetic, or psychological defect or illness anywhere in the biological world. The objection, then, simply rests on a non-sequitur.

²³We don’t claim that a tendency to persist is *incompatible* with classical theism; we have only claimed that it plausibly *undermines* persistence arguments. For if we grant such a tendency, then there seems to be a workable tendency-disposition account of persistence that illuminates why things persist without appeal to external sustenance. (To be sure, classical theists may hold that appeal to external sustenance is needed for reasons *other* than persistence arguments. Our point here, though, is restricted to persistence arguments.)

²⁴We’re here using “natural” in the sense that many classical theists use it (as in, e.g., Feser 2014, pp. 258–261). In this sense, “S is naturally F” means (roughly) that F-ness is proper to or characteristic of the kind of thing S is. It does not mean whatever belongs to that kind *must*—as a matter of metaphysical necessity—be F in order to fall within the kind.

7.2.5 *PMC Argument*

The PMC argument for EIT is based on the second propositional necessity account from Sect. 6.5 deriving from the *Principle of Material Causality (PMC)*. In addition to serving as an inertialist-friendly explanation of persistence, this account serves as an argument for EIT. If you recall, the fact that some temporal concrete things persist absent efficient causal sustenance *simply followed* from the explanatory facts cited. This, in turn, undergirds a new argument for EIT. We discussed justifications for each premise in Sect. 6.5. Thus, for this section, we'll just articulate the argument in premise-by-premise form:

1. PMC is true.
2. Temporal concrete things cannot be continuously *made from* something timeless.²⁵
3. If (1) and (2) are true, then some temporal objects persist without efficient causal sustenance.
4. So, some temporal concrete objects persist without efficient causal sustenance. (1–3)

Having surveyed several motivations for EIT, we turn next to the criticisms thereof.

7.3 Defending Inertial Persistence

Our goal in this section is to survey and assess the principal criticisms of EIT in the literature, beginning with alleged counterexamples thereto.

7.3.1 *Alleged Counterexamples*

We should allay some immediate, potential counterexamples to EIT before considering more substantive criticisms of EIT. Consider first a violinist. If the violinist stops playing their music, presumably the musical sounds stop existing as well. Isn't this a counterexample to EIT's claim that things don't have sustaining or conserving causes?

Note first that EIT only claims that temporal concrete objects *or some subset thereof* persist in the absence of both sustenance and destruction. Thus, even if this were a case of a concrete object being sustained in existence (or requiring sustenance in order to exist), we wouldn't have a counterexample to EIT.

²⁵ Recall from Sect. 6.5 that this premise is not saying that something timeless cannot *efficiently* cause temporal concreta. Rather, it's saying that something timeless cannot *go into the makeup* of temporal concreta.

Importantly, though, this is not even a case of a concrete object being sustained in existence. For this case is a *process* of playing music and hence is not a concrete *object*. What's worse, the removal of the violinist does not cause the sound to cease, since the mechanical sound waves continue to exist as compressions and rarefactions of air molecules that can be heard after the violinist ceases to exist.

At best, then, this (and others like it) is a case of a *continually perpetuating*, rather than sustaining, cause—a cause such that its instantaneous removal (i) does not necessitate the instantaneous removal of the effect but (ii) contributes to the removal of the effect after a (sometimes short) duration of time.

Another purported counterexample to EIT is the laboratory-synthesized heavy elements that exist for a very short amount of time. Do the synthesized heavy elements persist in existence in the absence of sustenance and destruction? Don't the synthesized heavy elements instead simply spontaneously cease to exist?

First, recall again that EIT only quantifies over temporal concrete objects *or some subset thereof*. Hence, even if spontaneously decaying particles do not inertially persist, this does nothing to refute EIT. Second, the facts concerning the cessation of existence of such elements are fully consistent with EIT. This is because, plausibly, such quick cessations of existence are not utterly uncaused. Rather, they are *caused* to cease to exist, either by their intrinsic nature/character or by environmental conditions un conducive to their perpetuation.²⁶ But that means such elements are not counterexamples to EIT, since they could easily be such that they persist of their own accord for that short span of time and are interrupted in such persistence by sufficiently destructive internal or external factors. (See also Oderberg (2014, pp. 350–353) on the compatibility of radioactive decay and a tendency to persist in existence.)

Finally, one might argue that EIT is incompatible with the second law of thermodynamics, according to which the entropy of an isolated system never decreases. But this is not plausible. EIT is perfectly compatible with things' ceasing to exist when subject to sufficiently destructive factors (whether external or internal). And this is exactly what happens when things undergo a process of entropic decay: they are *causally destroyed* by an increase in disorder among their constituent parts and their environment. Thus, far from *disconfirming* EIT, the second law only *confirms*

²⁶ If the cessations are uncaused, then there are uncaused changes, and Feser's CP—upon which the Aristotelian proof (at least) depends—is false. (Note that one of us (Daniel) is not convinced that the cessation of the heavy atoms should be understood as having been *caused* as opposed to, say, *non-causally explained* by natural laws.)

one of EIT's predictions: that (some) things go out of existence just when subject to sufficiently destructive factors (whether internal or external).²⁷

Although EIT is immune to immediate, alleged counterexamples, whether the principal criticisms of EIT in the literature succeed remains to be seen. We turn to examining those criticisms next.

7.3.2 *Red Chairs*

Let's first consider Oppy's reflection on existential inertia and the criticisms thereof from McNabb and DeVito (2020) as well as Kerr (Forthcoming). To begin, it's worth quoting Oppy at length:

Yesterday, throughout the entire day, there was a red chair in my room. Pick some time t around noon yesterday. At t , the chair existed, and the chair was red. Moreover, at t , the chair had the potential to exist, and to be red, at $t + \epsilon$, where ϵ is some relatively short time interval (say, a millionth of second). Do we need to postulate the existence of some distinct thing that exists through $(t, t + \epsilon)$ that actualizes at $t + \epsilon$ the potential that the chair had at t to both exist and be red at $t + \epsilon$? I do not think so. Given that, at t , the chair has the potential to exist and to be red at $t + \epsilon$, all that is required for the realization of this potential is that nothing intervenes to bring it about, either that the chair does not exist, or that the chair is not red, at $t + \epsilon$. Potentials to remain unchanged do not require distinct actualizers; all they require is the absence of any preventers of the actualization of those potentials. In particular, things that have the potential to go on existing go on existing unless there are preventers—internal or external—that cause those things to cease to exist. (2021, p. 494)

The idea here is that states or conditions of unchangingness don't require distinct actualizers to "keep" or "maintain" them in such states or conditions; only *deviations* from such states or conditions require a distinct actualizing cause. Stated differently, actuality behaves *inertially* insofar as states simply continue unperturbed unless positively changed to some different state (becoming green as opposed to red, say, or being destroyed). McNabb and DeVito, however, are not impressed by Oppy's point. They respond:

[I]n order for the chair to remain red at $t + \epsilon$, the chemical microstructure of the chair will have to continue being in a certain way. If the microchemical structure of the chair were different, the chair would no longer be red. So, it isn't the case that the red chair can remain red at $t + \epsilon$ as long as nothing intervenes. Rather ... in order to retain 'the redness,' something outside of 'the redness' needs to be in place. (2020, p. 729)

²⁷ Here are still further responses. First, Oderberg (2014) argues quite convincingly that a tendency to decay only makes sense against the backdrop of a complement tendency to persist. Thus, even if things have some kind of entropic tendency toward decay, this is perfectly compatible with their having a tendency to persist. (Note, though, that a tendency to persist is only invoked in tendency-disposition accounts of EIT. Other accounts don't need it.) Second, the second law only applies to *physical* objects, however EIT can still be true if there is some *non-physical* temporal object that persists in the absence of external sustenance and destruction. Finally, see Audi (2019) for why the second law arguably counts *in favor* of EIT's truth.

But this response to Oppy is inadequate on multiple fronts. In order to simplify things, let's simply focus on the *existence* of the chair. There are three reasons for this simplification. First, persistence arguments don't primarily concern inherent properties of things (like redness) or states of affairs (like the chair's exemplifying redness at some time) but instead the very being or existence of substances. Second, McNabb and DeVito's response carries over to the chair's existence itself—as with the chair's *redness*, in order for the chair to remain in *existence* (so the carried-over response would go), the chemical microstructure of the chair will have to continue being a certain way. Third, the dialectical context of Oppy's criticism and McNabb and DeVito's rejoinder is Feser's Aristotelian proof. But Feser (2017, pp. 26–27) gives an example in which the *existence* of composite material substances (e.g., water) is “actualized” by their atomic constituents, which in turn are actualized by the subatomic constituents, and so on. Thus, focusing on the chair's *existence* is entirely kosher in the dialectical context at hand.

With this focus in hand, we can consider the first problem with McNabb and DeVito's rejoinder. The problem is that appealing to microstructure as a “cause” upon which a chair depends simply undermines persistence arguments' inference to an unsustained sustainer of the existence of everything apart from itself. For the microstructure of the chair is a *component* of the chair, and only “actualizes” the chair in the sense that something “depends” (in some sense) on its components. But upon tracing *this* causal chain of “dependence” down to a first member, all we're entitled to infer about the first member is that it is an *uncomposed component*, not that it is an unactualized actualizer of the very being or existence of the secondary members of the dependence chain in question. McNabb and DeVito have not pointed to something *outside* the composite object as an actualizer of its very being; instead, they've merely sent us off on a regress of more fundamental component *parts* of something on which that thing “depends” (in the sense of whole-to-part dependence). Their response, then, ends up doing more harm than good for persistence arguments.²⁸

²⁸There may be a sense in which focusing on the *redness* of the chair as opposed to its *existence* avoids the problems we raise concerning parts and wholes (and parts' not being efficient causes of their wholes). For on some theories of color (e.g., some versions of color realism), color is not *composed* or *constituted* by the microchemical properties but is instead *efficiently caused by* (or realized by, emergent from, etc.) them. In response, we note that it's true that on some theories of color, these will be efficient rather than material causes. But, first, recall again the dialectical context of Oppy's criticism: Feser's Aristotelian proof and its denial of EIT. Crucially, Feser is fundamentally concerned *not* with the properties of things but instead with their *existence*. And, indeed, this is precisely the regress he sends us off on in his chapter: parts of coffee “actualizing” the coffee's existence. Second, if one takes this line of response, then one has brought in a deeply controversial account of the nature of color, one that is neither contained nor justified in the classical theistic proofs that take aim (in part) at existential inertia—e.g., those defended in Feser (2017) or McNabb and DeVito (2020). If a defense against Oppy's criticism needs something like this highly controversial account of color, then persistence arguments lose much of their force. (And, moreover, the detractor can simply reject the account and thus reject the purported counterexample to Oppy.) Thanks to Tyler McNabb for bringing this to our attention.

The second problem is that the chemical microstructure of the chair is a *material cause* of the chair, *not* an efficient cause that continually brings the chair into existence. Hence, McNabb and DeVito's example does not constitute a counterexample to Oppy's claim, since Oppy is fundamentally concerned with existential inertia, i.e., objects' continuing in existence *not* without a material cause but instead *without a continuously sustaining external efficient cause (or ground, etc.)*.

Furthermore, it's plausible that (i) the microstructural elements of the chair are *parts* of the chair, but (ii) the parts of something plausibly *cannot* efficiently cause (i.e., actualize the existence of) their whole. Here are, briefly, three reasons why this is so. First a dialectical reason: if we allow that parts of something *can* efficiently causally sustain their whole, then, as we've seen, persistence arguments could only get us to an unsustained, uncomposed component that sustains wholes—not a radically transcendent God who is *not* a part of creation. Second, under some plausible (broadly) Aristotelian views, parts of a substantial whole are less fundamental than the substantial whole they compose. Their existence *qua* the things they are presupposes the (ontologically) prior existence of their substantial whole and hence cannot causally explain its existence. Your arm cannot be the efficient cause of you, since your arm's being *your* arm in the first place presupposes *your existence* as a substance. Third, Thomistic-Aristotelianism entails that parts of substances exist merely *virtually* (and hence only in potency)—cf. Feser (2014, p. 197). But per the Aristotelian proof's causal principle, only things existing in *actuality* can causally actualize the existence of something else. And, again, it is the Aristotelian proof's denial of EIT that is at issue in Oppy (2021) and McNabb and DeVito (2020). While our second and third points in this paragraph depend on an Aristotelian view of substances, there is still value in bringing to light incompatibility between McNabb and DeVito's rejoinder (on the one hand) and Aristotelian views (on the other hand). For not only are classical theistic proofs (as we've seen) often embedded in a Thomistic or Aristotelian metaphysical framework, but the aforementioned Aristotelian views are also rationally defensible—and to the extent that one finds them plausible, one has *pro tanto* reason to reject McNabb and DeVito's rejoinder.²⁹

Overall, then, McNabb and DeVito have not succeeded in providing a counterexample to Oppy's point. The final criticism McNabb and DeVito level towards Oppy's point is as follows:

[T]here is still a fundamental question that Oppy would have to engage. What is it that actualizes the potential of chair to possess such a nature that it can continue being red from T¹ to T² without any external interference? Oppy will be hard pressed to find an explanation that doesn't bottom out in an uncaused caused. (2020, p. 730)

We have two points to make in response. First, while Oppy would have to engage this fundamental question, the onus of justification is on Feser, McNabb and DeVito, and other defenders of persistence arguments to *demonstrate* that any

²⁹ Another problem is that their case only targets *composite, macro-physical things*. But EIT—at least as we articulate it—only quantifies over a *subset* of temporal concreta, which—in principle—could include only non-physical things or non-composite, micro-physical things.

non-purely-actual thing concurrently depends on an external efficient sustaining cause at any moment which that thing exists. They are, after all, in the business of giving a *positive argument* for God's existence. So, even if Oppy does not answer the question concerning what explains such beings' existence at a given (non-first) moment of their existence, that would by no means vindicate persistence arguments.

Second, there are several ways that Oppy could engage this very question. This was the project of the previous chapter wherein we developed a host of defensible metaphysical accounts of EIT. Oppy could make use of any of those metaphysical accounts of EIT to explain persistence and answer the question McNabb and DeVito here pose. Nothing in what McNabb and DeVito say here rules out these alternative explanations of the persistence of temporal objects.

Now let's turn to Kerr's ([Forthcoming](#)) response to Oppy on red chairs. Kerr argues that purported inertially persistent properties like color *differ* from existence (*esse*) in that the former, unlike the latter, depend on the prior reality of their substances: "The redness of the chair is dependent on the subject in which it subsists for its actuality; *esse* on the other hand is not something added to some already existing subject in which it remains or subsists; *esse* is what gives being to the subject whole and complete" (Kerr [Forthcoming](#)). What to make of this?

For starters, the point rests on deeply controversial metaphysical commitments the inertialist need not accept. The inertialist might hold that there is no such thing as *esse*; or that existence, instead of being a first order causal property of substances, is a second-order property of properties; or that existence, while a first-order property of substances, is not a *causal* property thereof in the sense of something that "gives being" to the subject; and so on. What's more, the inertialist need not grant that the chair's *redness* depends on the chair. Perhaps *redness* is a Platonic universal whose existence is not at all dependent on the contingent things that happen to instantiate or exemplify it. More generally, the inertialist need not grant that properties "subsist in" subjects for their actuality. The inertialist need not even grant that there *are* properties.

But suppose we set these worries aside. Still, a question for Kerr remains: why is this difference between *esse* and properties like color a *relevant* difference? Kerr has only argued that there is a *difference* between them in terms of dependence on the prior reality of their subjects. But why suppose this is a difference that *makes* a difference to candidacy for inertial persistence? Merely from the fact that *x* does not depend on the prior reality of *x*'s subject *S*, it doesn't follow that the continuance of *x* (or *S*, or *S*'s being or having *x*, or whatever) requires a continuously concurrent external sustaining cause. Merely establishing that *esse* is unlike other properties in

satisfying the antecedent is therefore insufficient for establishing that *esse* is not a candidate for inertial persistence.³⁰

7.3.3 Hsiao and Sanders

Hsiao and Sanders (2022) provide four (or so) lines of argument against EIT. We will address each in turn.

7.3.3.1 Counterexamples to EIT

In speaking of beings for which a concurrent cause is needed for their moment-by-moment existence, Hsiao and Sanders write:

Upon reflection, we see that the world is filled with such beings. For example, an ice sculpture is a dependent being in the sense that its continued existence depends on external conditions like temperature level. If the temperature were to suddenly rise to 10,000 degrees, then the sculpture would immediately cease to exist. Cold temperature functions as a sustaining cause that keeps ice sculptures in existence. (2022, p. 224)

We make several points in response. First, note that temperature is (or involves) something like mean molecular kinetic energy.³¹ In other words, temperature is the average energy content associated with the movement of molecules. But what molecules are we talking about? It won't matter for the continued existence of the sculpture if the mean molecular kinetic energy to which we're referring is that of molecules *wholly outside* the sculpture. For if all the molecules *within* the sculpture (including the one's on the sculpture's exact boundaries) retained a mean molecular kinetic energy (and number of degrees of freedom) associated with a temperature value below 32 degrees Fahrenheit, then the statue will persist in existence. Thus, the kinetic energy of the molecules wholly outside the sculpture are *not* sustaining causes here. The kinetic energy of the molecules that Hsiao and Sanders label as a sustaining cause must therefore belong to the molecules *within* the sculpture. But in that case, the molecules and activities to which we've referred are merely *proper parts* of the sculpture, not efficient sustaining causes of its existence. They *constitute* the sculpture; they don't continuously efficiently cause the statue's very being. And even if they *did*, this is no threat to EIT, since—as we've seen—EIT only

³⁰ We are not claiming that Kerr *is* trying to show that this is a relevant difference, and nor are we claiming that he is trying to infer from the antecedent to the consequent. We are simply pointing out that anyone who wants to *use* Kerr's point to object to EIT must establish that this *is* a relevant difference. Note, finally, that Kerr (Forthcoming) does say things that could be taken as proffered justifications for why this is a relevant difference. We wait until Sect. 7.3.8 to assess them, as they find a natural home therein.

³¹ We only need the weaker claim that temperature *involves* mean molecular kinetic energy. What we say here doesn't require reductionism about heat.

denies (of objects within its quantificational domain) *external* sustenance.³² That is, EIT only debars inertially persistent objects from dependence on *non-parts* thereof. Thus, EIT already takes into account any dependence something might have on its parts, *even if* the relevant parts in question are efficient sustaining causes.

Second, as with the appeal to microstructural elements of the chair as purported actualizers of the chair's existence, an appeal to microstructural elements of the sculpture (e.g., its molecules, their bonds, etc.) as a "cause" upon which the statue depends plausibly undermines any intended inference to the classical theistic God. For once again, we've been sent on a regress that need only terminate in a (collection of) not-further-composed component(s) of something. But the God of classical theism, of course, isn't a *part* of anything.

But perhaps Hsiao and Sanders's other examples of sustenance will avoid the abovementioned objections. They write:

Likewise, you and I are dependent beings in the sense that our continued existence depends upon a myriad of physical conditions, including temperature, pressure, entropy, the strong nuclear forces holding our atoms together, and the laws of physics. Additionally, we depend on biological processes such as blood flow, breathing, cell replication, energy production, etc. in order to exist. If these conditions or processes were removed or significantly altered, we would cease to exist at that moment. (Hsiao and Sanders 2022, p. 224)

But again, Hsiao and Sanders have merely pointed to *component parts* (or *component processes*) of things, and hence such examples do not avoid the variety of problems articulated above. Simply re-run the points raised in response to the sculpture example here. In particular, upon distinguishing between the intrinsic versus extrinsic temperature, pressure, entropy, etc. as applied to humans, we can once again see that these are mere *component* parts and processes of humans (just as we did in the case of the sculpture's temperature). Hsiao and Sanders also write that "[i]maginary beings like those in your dreams would cease to exist the moment you cease thinking about them" (*ibid*). But dreams and their contents are *processes*, not concrete objects in their own right, and hence this will not target EIT as we articulate it. And in any case, EIT quantifies only over a *subset* of temporal concreta.

Again, the fact that EIT only quantifies over temporal concrete objects *or some subset thereof* is worth emphasizing. Thus, even if sculptures, people, and other macroscopic physical objects require outside sustaining causes of their existence, this would in no way invalidate EIT. For this says nothing about (say) the *foundational* layer of reality, whether the purported foundational layer be non-theistic (e.g., one or more fields, or the universal wavefunction, or a collection of fundamental particles, or a collection of mereological simples, or a collection of simple, non-theistic module tropes, etc.) or theistic (e.g., the neo-classical or panentheistic God). (Though, as we've argued, such macroscopic objects do *not* require outside sustaining causes.)

³²As Ingthorsson (2021, ch. 6) points out, it's well-nigh standard in contemporary philosophy of causation and mereology to hold that the constitution relation is not an efficient causal relation. Note, also, that we gave some Aristotelian-inspired reasons for this position earlier. But *even if* such molecules *did* continuously efficiently causally sustain the statue in being, this wouldn't violate EIT, since O's inertially persisting is perfectly compatible with efficient causes of O's persistence that are entirely *internal* to O. EIT only debars *external* sustaining causes.

7.3.3.2 First Metaphysical Argument

From what we can make out, three distinct metaphysical arguments against EIT are proffered in Hsiao and Sanders (2022), to which we turn now. Their first metaphysical argument runs as follows:

Another reason to think dependent beings require a continual explanation distinct from themselves is that existence is not built into their nature. For example, there is nothing in the nature of what it is to be a dinosaur that *requires* it to exist. It is possible for dinosaurs to exist or not to exist. Their existence is neither impossible nor required. Because of this, the “default state” of a dinosaur’s nature is non-existence. (*Ibid*, p. 225)

More accurately, however, one should say that such objects simply *have no default state*. And as we explained in Chap. 3 with respect to our necessary condition for *per se* chains, this fact can plausibly *motivate* inertial persistence. If S has *no default state whatsoever*, then once S is *placed* in a state, S will plausibly *retain* that state (without needing something external to causally sustain S in that state) provided that there are no net causal factors operative inclining S towards a different state. (Recall also no-change accounts of EIT.) At the very least, to suppose otherwise in the present dialectical context is to beg the very question at issue. The first metaphysical argument, then, doesn’t count against EIT.

A second thing to note is that EIT is compatible with non-existence being the default state for everything contingent and the further claim that anything for which non-existence is the default state requires concurrent external sustenance in order to continually exist. For EIT, again, quantifies only over temporal concrete objects *or some subset thereof*, and hence EIT might be true due to some foundational, *necessary* temporal concrete object(s).

A third response is that even granting that the “default state” of contingent things is non-existence, nothing follows about their *persistence* once they are *brought into existence*. For—once brought into existence—they are *not* in their default state. And lest Hsiao and Sanders beg the very question at issue, we cannot merely assume that—once in existence—contingent things would revert to their “default state” absent continuously operative sustenance from without. More generally, nothing Hsiao and Sanders say rules the following scenario out, which they would *need* to do for their case to succeed: even if contingent things don’t naturally or essentially exist, they *could* still naturally inertially persist *once brought into existence*.

A fourth and final response is that a continuously operative, external sustaining efficient cause is *not* required to prevent contingent things from reverting to their “default state.” All that’s required is an *explanation* of why they don’t revert to their default state. And as we saw in Chap. 6, there are whole swathes of inertialist-friendly explanations that deliver on this front.

7.3.3.3 Second Metaphysical Argument

Here's the second metaphysical argument Hsiao and Sanders provide: "Second, if dinosaurs *did* have existence built into their nature in the same way that being a reptile is built into their nature, then they could never cease to exist and would have to exist forever" (2022, p. 225). But, of course, they *can* cease to exist.

Hsiao and Sanders do not define what being "built into" a nature means. We will understand F's being built into the nature of S to mean that F is either an essential property of S or an essential part of S. With this understanding in hand, the quoted claim above is a non-sequitur.

Suppose we think x is F essentially if and only if necessarily, if x exists, then x is F. This is a typical formulation of what is at least logically equivalent to (though probably not an informative *analysis* of) essentiality. In that case, though, existence is essential to every object, since it's trivial that, necessarily, if object x exists, then x exists.³³ In this understanding, existence is "built into" every object's nature in the sense that existence is at least predicated essentially of every object. But this doesn't mean that objects automatically or necessarily exist. The statement that existence is built into every object's nature doesn't entail that some object x exists *because* existence is essential to x. It also doesn't entail that x *necessarily* exists. For x to exist necessarily, *necessary existence* (not just *existence*) would have to be an essential property of x.³⁴ But the proposal in question isn't that *necessary* existence is an essential property of x. Furthermore, the mere fact that existence is essential to x does not entail that x cannot cease to exist. All one needs to do is cause any one of x's essential properties to go out of existence (or to stop being instantiated) in order to cause x to go out of existence.³⁵

In sum, the mere fact that <necessarily, if x exists, then x exists> entails *neither* <x cannot fail to exist> *nor* <x cannot cease to exist>. And yet per the aforementioned understanding of "being built into x's nature", existence being built into x's nature only entails that necessarily, if x exists, then x exists. Hence, *pace* Hsiao and Sanders, existence being built into x's nature entails neither <x cannot fail to exist> nor <x cannot cease to exist>.

What's more, EIT *does not require* existence to be built into inertially persistent things' natures. Even if existence is always entirely separate from things' natures, this doesn't at all entail that things require external sustenance in order to exist. Nowhere do Hsiao and Sanders justify this, firstly, and secondly, things would only

³³ Note that the onus is not on *us* to positively justify this account of essentiality; the onus is on the one mounting a *positive argument against EIT* to show why this account is *false*.

³⁴ Note, though, that necessary existence being an essential property of x isn't *sufficient* for x to exist or to exist necessarily. After all, an atheist can grant that necessary existence is one of God's essential properties. In granting that necessary existence is one of God's essential properties, the atheist is only granting that, necessarily, *if* God exists, *then*, necessarily, God exists. This doesn't imply that God exists, let alone that God cannot cease to exist.

³⁵ See Parent (2016) for more on why building existence (or even necessary existence) into an entity's definition or essence doesn't entail that the entity exists (or even necessarily exists).

require an *explanation* for their persistence. But there are whole swathes of inertialist-friendly explanations that deliver here.

Now, on behalf of Hsiao and Sanders, one might reason as follows. Any inertia with respect to any state requires an internal, active disposition for that state. In other words, in order to inertially persist, an object must have an internal active disposition for actuality. But no contingent object can have an internal active disposition for actuality. For if a contingent object *did* have such a disposition, then the contingent object would have actuality as part of that object's essence, which would render the object *necessary* rather than contingent.

But this reasoning is mistaken. First, it's not clear why any inertia with respect to any state requires an active disposition toward that state. *Some* (and only some) tendency-disposition accounts of EIT might agree with this (at least with respect to inertial persistence), but it's not at all clear why inertial states require active dispositions toward those states. The inertialist can simply reject this claim, holding instead that something inertially remaining in a state only requires some *explanation* for why it remains in that state. And as we saw in Chap. 6, the explanation as to why an entity persists in a given state can take many forms that make no reference whatsoever to active dispositions.

Second, *even if* contingent things cannot inertially persist, this doesn't entail that EIT is false. EIT could still be true if there's a necessary temporal concrete object that inertially persists. So the objection at hand couldn't *in principle* show that EIT is false.

Third, the mere fact that a contingent entity has an internal active disposition for actuality would not entail that the entity has *actuality* as part of that entity's essence. *At most*, the entity would only have a *disposition* toward (persistent) actuality as part of the entity's essence; whether the entity has *actuality* as part of the entity's essence is a separate question. (We can understand the disposition *conditionally*: *if* the entity actually exists, *then* the entity is disposed to continue actually existing unless destroyed.)

Fourth, it's not at all clear why inertially persistent objects would require an active disposition toward *actuality* as opposed to an active disposition toward *continued existence, once in existence, in the absence of sufficiently destructive factors*. And *continued existence once in existence* being part of something's nature clearly doesn't entail *existence itself* (or *actuality itself*) being part of its nature.

Fifth, x's having actuality as part of x's essence doesn't entail that x is necessary. Consider again the aforementioned view of essentiality: x is essentially F if and only if necessarily, if x exists, then x is F. Here, existence (or actuality) is essential to everything: trivially, it's true of every x that, necessarily, if x exists, then x exists. This doesn't at all entail that x is necessary; even if x is contingent, it's still true that necessarily, if x exists, then x exists.

Let's now turn to Hsiao and Sanders' third metaphysical argument.

7.3.3.4 Third Metaphysical Argument

The third metaphysical argument in Hsiao and Sanders (2022), as we formalize it, runs:

1. If EIT is true for some contingent object *x*, then existence *becomes* part of *x*'s nature upon *x*'s coming to be.
2. If existence becomes part of *x*'s nature, then existence becomes either an essential or non-essential feature of *x*.
3. If existence becomes an essential feature of *x*, then it is impossible for *x* to go out of existence.
4. But it *is* possible for *x* to go out of existence (at least if caused to do so).
5. If existence becomes a non-essential feature of *x*, then the existence of *x* is both prior to and posterior to itself.
6. But it is not possible for the existence of *x* to be both prior to and posterior to itself.
7. Therefore, EIT is not true for any contingent *x*. (1–6)

On behalf of premise (1), they write that the “defender of EI [Existential Inertia] would have to claim that existence is not built into its nature but *becomes* a part of its nature ... after it is caused to exist. This would allow a being to explain its own continual existence without something distinct from itself” (*ibid.*, p. 225). We make four points in response to this claim and to premise (1).

First, Hsiao and Sanders provide no justification as to why the mere denial that existence is built into the nature of some contingent, inertially persistent object *x* would entail that existence must *become* part of its nature. Thus, their argument rests on a claim for which no justification is proffered.

Second, EIT *as such* does not maintain that a being “explains its own continual existence without something distinct from itself.” As we saw in the previous chapter, many metaphysical accounts appeal to *different* facts, and even among those that appeal (at least partly) to the entity itself to explain its own continual existence, such accounts adduce explanatory facts *distinct* from *O* at *t* to *explain* *O* at *t*.

Third, *pace* premise (1), EIT does not require existence to somehow “become part of” something’s nature (to use Hsiao and Sanders’s phrase). By way of analogy, consider a pre-relativistic, Newtonian understanding of space and mechanical inertia. In particular, consider that spatial location is almost always (if not always) numerically distinct from the essence of the object occupying said location. Take, for instance, a cup. For any particular spatial location *L*, the cup can exist *without* being located at *L*. This not only shows that *L* is distinct from the cup’s essence, but also shows that (i) *being in L* isn’t essential to the cup, and (ii) *being in L* never “becomes built into the cup’s nature.” But the mere fact that *L* is distinct from the cup’s essence (and not even included in its essence as one of its essential properties) *doesn’t entail* that the cup’s being *L* (at any moment at which the cup is *in L*) requires some kind of continuously concurrent external causal “keeper” or “sustainer” of the cup’s being in said location. Indeed, within a Newtonian framework,

the opposite is the case: no such continuously concurrent sustenance is required in order for the cup to simply retain the cup's spatial position.

What this illustrates is that inertial maintenance of *L* does *not* require that being in *L* somehow "become built into the essence of the cup." But by reasoning parallel to that of Hsiao and Sanders, inertial maintenance of *L* *would* require *being in L* to "become built into the essence of the cup." Hence, Hsiao and Sanders's reasoning is mistaken. At the very least, nothing Hsiao and Sanders say gives us any reason to think that existence is relevantly dissimilar to *being in L* (as the latter is understood within a Newtonian framework). And yet that's precisely what they would *need* to show for their argument to work.

Fourth, premise (1)—together with what Hsiao and Sanders say on its behalf—fails to consider the various metaphysical accounts of EIT. Tendency-disposition accounts, for instance, neither require nor entail that existence becomes part of something's nature. They only need a tendency or disposition in conjunction with certain manifestation conditions. Similarly, no-change accounts do not require that existence becomes part of something's nature. Some such accounts only need an understanding of existence as a state/condition of unchangingness in conjunction with a claim about the nature of such states/conditions. Other such accounts only need causal principles adduced in persistence arguments together with some plausible auxiliary theses (e.g., that there are no absences). Propositional necessity accounts say or entail nothing about existence becoming built into the natures of things; all they require is a commitment to the metaphysical necessity of EIT or some other thesis explanatory relevant to EIT. Likewise, objectual necessity accounts have nothing to do with existence becoming built into the natures of things. Instead, necessary existence is (in some sense) built into one or more foundational concrete objects, and these objects go on to continuously explain (whether by grounding, realization, causation, or constitution) non-foundational temporal things. Transtemporal accounts similarly have nothing to do with existence becoming built into things' natures. Rather, they say that transtemporal explanatory relations, in conjunction with the fact that there are no sufficiently destructive factors operative, adequately explain persistence. And so on.

We conclude, then, that premise (1) is both unjustified and false. But we wish to continue our appraisal of the argument, since lessons can be learned from what Hsiao and Sanders say on behalf of its other premises. We need not consider premises (2) and (6), since they seem relatively innocuous. And we can likewise grant premise (4). That leaves premises (3) and (5) to consider.

On behalf of premise (3), Hsiao and Sanders write that if some feature is essential to *S*, then *S* "could not possibly lose that feature. For example, being a living organism is essential to a human. If it lost that feature, it would stop being a human. So if existence is essential, then it would be impossible for this being to go out of existence" (*ibid*).

But this confuses *de re* necessity with *de dicto* necessity. If *F* is essential to *S*, this only means (*inter alia*) that *S* cannot exist without being *F*. Importantly, *F* being essential to *S* does *not* mean that necessarily, *S* is *F*. The former necessity is *de re*. The latter necessity is *de dicto*.

Now suppose, along with Hsiao and Sanders, that existence is essential to S. All that follows from this is that S couldn't exist without S existing. And this is true. What does *not* follow is that "necessarily, S exists" or "it is impossible for S to go out of existence." These are *de dicto* necessities that are not entailed by the *de re* necessity of S's essentially existing. Thus, inferring the impossibility of an entity's going out of existence from the mere fact that existence is essential to that entity is a non-sequitur. All we can infer from the fact that existence is essential to S is that necessarily, if S exists, then S exists. Nothing follows, however, about the impossibility of S's going out of existence. (Return to our points from previous subsections.)

Here's another way to appreciate our point here. If F is essential to S, then all we can infer is that S cannot possibly lose F *while remaining in existence*. Thus, Fido, a dog, cannot possibly lose the feature "being a living organism" *while remaining in existence*. But this doesn't entail that Fido cannot possibly "lose" the feature of being a living organism (in the sense that it is no longer true that Fido has this feature); Fido can lose this feature (in the aforementioned sense) by *going out of existence*. Once Fido "loses" the feature of being a living organism, the proposition that <Fido is a living organism> is no longer true. What this illustrates is that all we can infer from S's essentially being F is that S cannot possibly lose F *while remaining in existence*. But applying this to *existence* being essential to S, all we can infer here is that S cannot possibly lose existence *while remaining in existence*. It doesn't follow that S cannot possibly lose existence, just as it doesn't follow that Fido cannot possibly lose the feature "being a living organism" (since, again, Fido can lose the feature of being a living organism in the sense of going out of existence and hence losing *all* his properties). We conclude, then, that premise (3) is false—or, at the very least, unjustified.

On behalf of premise (5), Hsiao and Sanders point out that S's having a non-essential feature F presupposes that S's nature or essence *already* exist, in which case F cannot be S's existence. For then S's existence would be both prior and posterior to itself. As they write, one "cannot attach a case (non-essential feature) to a phone unless the phone already exists" (*ibid*). And from the denial that existence is either an essential or non-essential feature, they conclude that "[e]xistence must be an activity in the same way that change is an activity" (*ibid*).

We make two points in response. First, the inference to existence being an activity is a non-sequitur. Merely from the fact that existence is neither an essential nor non-essential feature of S, it doesn't follow that existence is an *activity* of S. (For instance: perhaps there is simply *no such thing as existence*—perhaps, in other words, there is no positive ontological item that is *existence*. Or perhaps existence is not a property of S but is instead a *second-order* property of properties. Or perhaps one of countless other views is true.) Second, the exact same reasoning Hsiao and Sanders employ against existence being a property or a non-essential feature of S equally applies to their claim that existence is an activity of S. For in order for S to *act* in a given way—to perform some activity like walking, say—S must *already* exist. Something must first *exist* in order to engage in various activities (i.e., in order to act). Non-existent things, after all, surely don't act or engage in activities. Thus,

existence cannot be an activity of S. This reasoning is exactly parallel to the reasoning Hsiao and Sanders use to dismiss existence being a property and a non-essential feature (respectively).

Here's our final point concerning the argument in question. *Even if* Hsiao and Sanders's argument succeeds, the conclusion, (7), is perfectly compatible with EIT, since EIT quantifies only over temporal concrete objects or some *subset* thereof, and the subset could very well include only non-contingent (i.e., necessary) things.

Overall, then, Hsiao and Sanders's third metaphysical argument is fraught with problems. Let's move on, then, to Feser's criticisms of EIT.

7.3.4 *Proportionate Causality*

One of Feser's central arguments against EIT derives from the Principle of Proportionate Causality (PPC), according to which a total cause cannot give to an effect what the total cause does not have to give in the first place. More precisely, according to the PPC, whatever exists in an effect must exist in the total cause thereof in *some* manner (whether formally, virtually, or eminently). With the PPC in hand, Feser argues:

1. A cause cannot give what it does not have to give.
2. A material substance is a composite of prime matter and substantial form.
3. Something has existential inertia if and only if it has of itself a tendency to persist in existence once it exists.
4. But prime matter by itself and apart from substantial form is pure potency, and thus has of itself no tendency to persist in existence.
5. And substantial form by itself and apart from prime matter is a mere abstraction, and thus of itself also has no tendency to persist in existence.
6. So neither prime matter as the material cause of a material substance, nor substantial form as its formal cause, can impart to the material substance they compose a tendency to persist in existence.
7. But there are no other internal principles from which such a substance might derive such a tendency.
8. So no material substance has a tendency of itself to persist in existence once it exists.
9. So no material substance has existential inertia. (Feser 2011, p. 258)

There are at least six problems with this argument.

First, the argument presupposes a controversial metaphysical account of the nature of (material) substances. Indeed, the argument—if successful (something we wouldn't grant)—establishes merely that "whether [hylomorphism] is correct depends in part on whether things have existential inertia in the first place," for if they have existential inertia, then (per Feser's argument) hylomorphism is false (Audi 2019, p. 7). And note that in this dialectical context, the onus is not on *us* to provide *positive reasons* to think that hylomorphism is false. Rather, the present

dialectical context is one wherein *Feser* is attempting to provide positive reason to think that EIT is false. Thus, we need only provide *undercutting* defeaters of the argument. So, in the present dialectical context, pinpointing an assumption of the argument that is left unjustified is a perfectly acceptable move. If *Feser* wants to provide the inertialist (or the neutral agnostic) with some reason to change their mind, then it's no use presenting them arguments with premises that they simply reject (or find unmotivated).

Second, premise (3) is false. Premise (3) says: "Something has existential inertia if and only if it has of itself [i.e., intrinsically or internally³⁶] a tendency to persist in existence once it exists." The left-to-right side of the biconditional here says that a persistence tendency intrinsic to *S* is a necessary condition for *S*'s persisting inertially. But this is false. It is not a necessary condition for *S*'s inertially persisting that there is some tendency to persist intrinsic to *S*. For there are whole swathes of inertialist-friendly explanations of an object's persistence—that is, metaphysical accounts of EIT—that do not posit such a tendency but instead adduce facts *extrinsic* to *S* at moment *m* to explain *S*'s existence at *m*. In fact, even tendency-disposition accounts need not posit any such disposition—Beaudoin, for instance, explains persistence in terms of the *absence* of an *annihilating* tendency. In light of such accounts, premise (3) is simply false.

To draw out our second response, consider one of the no-change accounts from Chap. 6. For *S* to *fail* to exist at *m* despite existing throughout [*m**, *m*), *m** < *m*, is for some *change* to occur.³⁷ But a change occurs only if some factor causally induces said change. Hence, if no factor causally induces a change, then the change won't occur. Thus, if no factor causally induces *S* to fail to exist at *m* despite existing throughout [*m**, *m*), then *S* exists at *m*. Once we add that nothing came along to causally induce this—that is, once we add that nothing came along to destroy *S* from *m** to *m*—it simply follows that *S* exists at *m*. Here, we seem to have a perfectly respectable, perfectly legitimate explanation of *S*'s existence at *m*, and this explanation adduces facts outside of or extrinsic to *S* at *m*. The same is true of the other no-change accounts we surveyed.

Or consider inertialist-friendly explanations based on laws of nature or transtemporal explanatory relations, each of which adduces facts extrinsic to *S* at *m* to explain *S* at *m*. An explanatory appeal to the de dicto necessity of EIT or some proposition explanatorily relevant to EIT (à la propositional necessity accounts) likewise cites facts extrinsic to *S* at *m*. And so on. Premise (3), then, is false.

To drive this point home further, consider the following Explanandum:

Explanandum: *S*'s existence at *m*.

³⁶ It is clear from context that this is what *Feser* means. Consider, for instance, that *Feser* seems to infer that <no material substance has a tendency of itself to persist in existence once it exists> from the facts that <form and matter are internal principles from neither of which the substance can derive a tendency to persist> and <there are no other internal principles from which such a substance might derive such a tendency>. This inference only works if "of itself" expresses "intrinsically or internally."

³⁷ See Sect. 4.4 for an objection to this claim and our responses.

Now consider the following Transtemporal Explanans and No-change Explanans:

Transtemporal Explanans: (i) There are no sufficiently destructive factors operative on S from m_{-1} to m (where m_{-1} is the moment immediately prior to m), and (ii) the state and/or existence of temporal concrete objects (or, at least, those within EIT's quantificational domain) at a given moment at which they exist causally produces their existence at the next moment provided that no sufficiently causally destructive factors are operative.³⁸

No-change Explanans: (i) S existed immediately before m (i.e., at m_{-1}); (ii) if S existed immediately before m but fails to exist at m, then S's cessation is (or involves) a change; (iii) nothing causally induces S's cessation at m_{-1} or m—that is, nothing destroyed S from the immediately prior moment, m_{-1} , through m; and (iv) a change occurs only if some factor causally induces said change.

Now, neither Transtemporal Explanans nor No-change Explanans cite explanatory facts that are *intrinsic* to Explanandum (i.e., that are intrinsic to S at m or S's existence at m). And yet both Transtemporal Explanans and No-change Explanans are scenarios in which S inertially persists. Hence, something can inertially persist (i.e., persist in the absence of both destruction and continuous external sustenance) *without* this inertial persistence deriving from (resulting from, being explained by) some intrinsic principle or tendency. Instead, for each non-first moment m of S's life, the inertialist-friendly explanation of S at m can easily be extrinsic to S at m.³⁹ Thus, premise (3) is false.

One might object that neither Transtemporal Explanans nor No-change Explanans sufficiently explains Explanandum. We have two responses. First, the present dialectical context is one wherein *Feser* is proffering a *positive argument* that requires the explanatory insufficiency of Transtemporal Explanans and No-change Explanans. All we need to do, then, is point out that nothing in the argument or what's said on its behalf gives those who *do* think Transtemporal Explanans and No-change Explanans sufficiently explain Explanandum adequate reason to *abandon* their view. Second, the explanatory facts adduced in each explanans *are* sufficient. If by "sufficient explanation" we mean an explanation citing facts that remove mystery as to why the explanandum obtains, then we confess that—by our lights—each explanans removes mystery as to why and how S exists at m. The explanandum

³⁸ Two notes. First: for simplicity, we here assume that time is composed of smallest units termed *moments*. Nothing hangs on this, though; we could explicate each explanans in a continuous-time-friendly manner *mutatis mutandis*. Our more general point remains unaffected. Second: these are not the *only* explanantia under no-change and transtemporal accounts. We choose only *one* explanans from each of these two families of accounts for ease of exposition.

³⁹ Alternatively, if one wants to say—at least with respect to the Transtemporal Explanans—that the explanans is intrinsic to S *in the sense that* the "principal explanatory mechanism"—transtemporal causation relating the successive phases of S's life—is entirely contained within S's life, that's fine. Then premise (7) ("there are no other internal principles from which such a substance might derive such a tendency") would be false, since there *is* something else intrinsic to S's life that accounts for S's inertial persistence—to wit, transtemporal causal relations among the successive phases or states of S's life.

was simply derived from the explanatory facts cited, and they illuminate precisely why S exists at m.

To be sure, there might be the further question of why some of those explanatory facts *themselves* obtain. For instance, there might be the question as to why reality is so constituted that the successive stages in an object's life are related by causal relations. But this is a *separate question* from why S exists at m. And, plausibly, providing plausible stories for the former question will not be difficult. And to quote Beaudoin once more, "it is not a condition on legitimate explanation that a deeper explanation for every statement in the explanans always be ready to hand, or even that it exist at all" (2007, p. 89).

Here's our third response to the argument. Consider chemical reactions in which two reactant species are each (individually) essentially colorless but when mixed together produce a vibrant red color. Although each individual part of the total cause of the vibrant red color is essentially colorless, the combination of the individual parts within the total cause nevertheless produces a vibrant red color.

This is not a proposed counterexample to the PPC. Instead, the example reveals that there are ways that features can be present in total causes that Feser's argument neglects. In particular, features can be present within total causes in a way we shall term *conditional potencies*. O possesses a conditional potency for F provided that O, when conjoined with some other condition or thing O*, gives rise to a system (O-O*) that manifests F. The red was not actually or formally present in the total cause (the two chemical species plus relevant environmental conditions), but the red was nevertheless present in the total cause as a conditional potency of each reactant species. The first reactant species had the conditional potency, when combined with the second species, to produce red; likewise with the second reactant species.

We can now apply this to Feser's argument. Specifically, merely from the fact that neither prime matter nor substantial form (of themselves) can have a tendency to persist in existence, it doesn't follow that the *combination* of prime matter and substantial form is incapable of having a tendency to persist in existence—any more than the fact that neither of the two reactant species can (of themselves) manifest redness entails that their *combination* cannot manifest redness. In the case of the chemical species, their combination can manifest redness precisely because each component has the conditional potency to manifest—when combined with the other—redness. Similarly, Feser's argument neglects the fact that a form-matter composition may be able to manifest a tendency to persist in existence because each component has the conditional potency to manifest such a tendency when combined with the other component. By illicitly assuming that neither form nor matter could have such a conditional potency, Feser's argument fails.

Feser responds to the above rejoinder as follows:

One problem with this is that, just left at that, it doesn't really amount to much of an objection. For in the case of the chemical constituents, there are chemical facts we can point to that explain exactly *why* they will together generate something red. But Schmid does not tell us *exactly what it is* about prime matter and substantial form that would (or indeed *could*), when they are combined, generate a tendency to persist in existence. (2021b)

But this reply simply misunderstands the dialectical context at hand. Our objection is an *undercutting* defeater. Because we are offering an undercutting defeater, we do not need to *positively justify* or *spell out* exactly what it is about prime matter and substantial form that would, when combined, result in a tendency to persist in existence. We need only point out that nothing in Feser's argument offers any reason for *ruling out* a tendency to persist in existence, and that, for Feser's argument to succeed, Feser would *need* to rule out a tendency to persist in existence. In other words, we need only point out that Feser has not given the hylemorphically-inclined existential inertialist who *does* think that the form and matter, when combined, result in a tendency to persist in existence sufficient reason to *abandon* their position. Thus, it is flatly irrelevant whether we specify exactly what it is about form and matter that, when combined, results in a tendency to persist.

To draw this point out, imagine we live in 500 B.C. without any knowledge of the underlying chemistry of chemical species A, B, and C. I (Joseph) have gone blind recently, but you haven't. Before going blind, I interacted numerous times with A and B and know that they are colorless liquids. But neither of us have combined A and B together to see what results. Today, however, we combine A and B together to produce C. You can see that C is a vibrant red liquid. I, of course, cannot. You tell me C is a vibrant red. I scoff, responding:

But that's not possible. The only things from which C could derive such a feature would be A and B, and neither of them have the feature to grant to C. They are both colorless. And so there is simply nowhere from which C could derive this vibrant color. You must therefore either be lying to me, or playing a trick on me, or your visual apparatus is malfunctioning.

You respond:

Your argument, however, makes the entirely unjustified assumption that there is nothing about A and B that would enable them to display, *when combined*, this additional quality that neither of them alone possessed. Consider wine. Wine has a distinctive flavor that none of its various constituents individually have.

Imagine I respond with the following:

That doesn't really amount to much of an objection. In the case of wine, there are facts we can point to that explain exactly *why* they will together generate a substance with a distinctively wine-like flavor. However, you have not made clear what there is in A and B that would (or could) result in this vibrant red color when combined.

This response is confused. It is plainly irrelevant whether you can point to facts about A and B that illuminate why they generate redness when combined. *For I was the one offering a positive argument that A and B cannot generate redness.* And my argument *assumed* that there *couldn't* be anything about A and B that can combinedly manifest some feature not individually found in either. You then pointed out that my argument *needs* to assume this in order to succeed, but that absolutely *no* reason was provided for such an assumption. And you pointed to a case wherein precisely this "manifesting of a feature not individually found in any of the constituents" occurs in order to bolster the *in principle legitimacy* of this kind of phenomenon. My argument does nothing to rule this out in the case of A, B, and C, and yet ruling this out is precisely what *needs* to be done for my argument to work. So, my

argument fails. And for the same reason, Feser's argument fails. The case of A, B, and C is structurally identical to the dialectic with Feser's PPC argument.

Here's our fourth response to Feser's PPC-based argument. Depending on how we understand "principle," premise (7)—that there are no other internal principles from which a substance could derive a tendency to persist—is arguably question-begging in this dialectical context. For whether there is such a "principle" of material substances—namely, something that accounts for their (inertial) persistence, however we spell this out (cf. the metaphysical accounts)—is precisely what is at issue. The question at hand is precisely whether form and matter are the sole principles of material substances, since the question at hand is precisely whether there is an additional principle (or additional fact about reality or temporal concrete objects) which accounts for the (inertial) persistence of things. Hence, Feser's argument is question-begging.⁴⁰

Feser responds to the above rejoinder as follows:

To see the problem with this objection, consider an EIT-rejecting reductive naturalist who argues as follows:

The physical world consists of nothing more than fermions and bosons and the laws that govern them. But there is nothing in the nature of fermions and bosons or the laws that govern them that entails that they have existential inertia. Hence, there is no such feature in the physical world.

Whatever you think of such an argument, would it beg the question? Not if the speaker has independent grounds for being a reductive naturalist. Hence, in response to such a reductive naturalist, a defender of EIT would either have to give some argument against reductive naturalism, or show that the conclusion does not follow from the premises. It would not be enough merely to accuse the speaker of begging the question. But by the same token, my argument does not beg the question *if* I have independent grounds for being a hylemorphist, which I do. Hence, even if Schmid had other good reasons to reject the argument, accusing step 7 of begging the question is not a good one. (2021b)

But this is confused. Suppose John is a theist, and suppose John argues as follows:

1. God exists.
2. Therefore, God exists.

Now suppose an atheist charges John with question-begging. Following Feser's rejoinder above, suppose John responds:

Whatever you think of such an argument, would it beg the question? Not if I have independent grounds for being a theist. Hence, in response to such an argument, an atheist would either have to give some argument against theism, or show that the conclusion does not follow from the premises. It would not be enough merely to accuse me of begging the question.

⁴⁰At least assuming that "principle" means some fact about material substances (and/or the conditions in which they find themselves) that accounts for (inertial) persistence.

This response is confused. And yet it exactly parallels the one that Feser has given to our charge of question-begging. It is irrelevant whether the *proponent* of the argument has independent reasons for accepting one of the premises. What matters, instead, is whether the argument's premises and the considerations adduced on their behalf provide those who *don't already accept the argument* (or are agnostic on the argument) sufficient reason to *abandon* their position and come to *accept* the argument. The job of the *detractor* of the argument is *not* to give some argument *against* one or more of the premises, i.e., some argument positively justifying a denial of one of the premises. Just as the onus is not on the atheist to give some positive argument against theism in the above dialectical context, the onus is not on *us* to give some positive argument against hylemorphism in the context of Feser's PPC-based argument. Thus, Feser's response to the charge of question-begging fails.

Here's another reply to Feser's response to the charge of question-begging. Even if Feser has independent reasons for the thesis that material substances are compounds of substantial form and prime matter, what matters is whether Feser has independent reasons for the thesis that material substances are compounds *only* of substantial form and prime matter. Most (if not all) of the arguments for hylemorphism—if successful—only establish that material substances are composed of substantial form and prime matter.⁴¹ But whether these are the *only* principles of material substances is an entirely separate question. For his response to the question-begging objection to succeed, Feser would have to show that these are the *only* principles of material substances. And yet—as far as we're aware—he has done no such thing.

Our fifth response to Feser's PPC-based argument is that even if successful, the argument isn't an argument against EIT *as such*. Recall that EIT quantifies over temporal objects *or some subset thereof*. But for Feser's argument to show that no temporal objects persist inertially, he would have to show that every temporal object is a *material* object. For only then can he infer the denial of EIT from his conclusion (that no material substance has existential inertia). But why should we accept this claim? Why should we believe that any temporal object is *material*? There may, at least in principle, be a non-material temporal entity. Consider, for instance, the neo-classical theistic or panentheistic God. Or consider neutral monism. And so on *ad nauseam*. What matters for present purposes is that for Feser's argument to target EIT *as such*, he would need to justify the claim that every temporal object is material. And yet he has done no such thing.

Our sixth and final response to Feser's argument is that the argument seems to entail—absurdly—that *no* material substance has *any* (intrinsic) tendencies. Recall the basic thrust of Feser's argument: the only two principles of material substances are form and matter. But by itself, matter is pure potentiality and so doesn't actually

⁴¹ For instance, Feser's (2019, pp. 20–27) arguments for hylemorphism—if successful (and that's a big *if*)—only establish that there are such things as prime matter and substantial form. Feser argues, for instance, that the determinability, changeability, particularity, diversity, and imperfection exhibited by material substances is (or must be) explained by prime matter, whereas the determinacy, unchangeability or permanence, universality, unity, and perfection exhibited by material substances is (or must be) explained by substantial form. But this is perfectly compatible with there being *other* facts about material substances that something *else* (i.e., something other than prime matter and substantial form) explains. The hylemorphically-inclined existential inertialist may very well say that one such fact is precisely inertial persistence.

exist, in which case matter cannot—of itself—impart any tendency to persist. And by itself, form is a mere abstraction and so doesn't actually exist, in which case form cannot—of itself—impart any tendency to persist. From this, in conjunction with PPC, it (purportedly) follows that no material substance has a tendency to persist. But now run the following parody argument: the only two principles of material substances are form and matter. But by itself, matter is pure potentiality and so doesn't actually exist, in which case matter cannot—of itself—impart any tendency to ϕ . And by itself, form is a mere abstraction and so doesn't actually exist, in which case form cannot—of itself—impart any tendency to ϕ . From this, in conjunction with PPC, it (purportedly) follows that no material substance has a tendency to ϕ . The conclusion of this parody argument, if true, implies that *no* material substance has *any* (intrinsic) tendencies. But that's absurd. And yet this parody exactly parallels Feser's argument. Hence, Feser's argument fails.

For these six reasons, we conclude that Feser's first argument against EIT fails.

7.3.5 *Form-matter Interdependence*

Feser's second criticism of EIT is based on form-matter interdependence. "For since in purely material substances matter depends on form and form depends on matter," writes Feser, "we would have a vicious explanatory circle unless there was something outside the form/matter composite which accounts for its existence" (Feser 2011, pp. 247–248). What to make of this argument?

We have five criticisms. First, the argument is quite dialectically limited insofar as it rests on a hylemorphic account of temporal, material objects. Audi's point about hylemorphism and existential inertia applies as much in this context as in response to Feser's first argument from the previous section. (*Assuming*, that is, that Feser's argument here succeeds *even granting* hylemorphism—an assumption we wouldn't accept.)

Second, even if it is true that, because they depend on one another for their actual existence at each time t at which they are conjoined, form and matter at t require an explanation outside themselves for their actual compositional existence, this is compatible with all (or nearly all) metaphysical accounts of EIT articulated in the previous chapter. Consider transtemporal accounts according to which O -at- t_{-1} (in conjunction with a few other facts) explains the existence of O -at- t . In this case, we avoid vicious explanatory circularity, since we are not explaining the form of O -at- t by the matter of O -at- t (or vice versa); instead, we are explaining O -at- t by O -at- t_{-1} , which amounts neither to self-explanation nor to vicious explanatory circularity. Or consider propositional necessity accounts: the conjoined-ness of the form and matter at t is explained by something outside of themselves, to wit, the metaphysical necessity of their continued conjoined-ness in the absence of sufficiently destructive factors (or else the metaphysical necessity of *some other thesis* explanatorily relevant to their continued conjoined-ness in the absence of such factors). And so on down the list of metaphysical accounts—in each case, vicious circularity is avoided, since each of them adduces factors beyond O at t (and beyond O 's form at t and

matter at *t*) to explain *O* at *t* (for each non-first time *t* of *O*'s life).⁴² Hence, Feser's argument against EIT fails. It would only establish, at best, the need for an *explanation* of the combination of matter and form at a given time. But metaphysical accounts of EIT offer precisely that, and hence nothing here counts against EIT.

Third, vicious explanatory dependence for existence is metaphysically impossible *regardless* of whether there is something extrinsic that accounts for the viciously intertwined things. If *x* explains the existence of *y*, and *y* explains the existence of *x*, then *x* is both *prior* to *y* (on account of explaining *y*'s existence) and *posterior* to *y* (on account of being explained by *y*). Since posteriority plausibly implies non-priority, we have a contradiction on our hands. But contradictions are impossible irrespective of something extrinsic that allegedly grounds their obtaining. Far from disproving EIT, then, Feser's argument simply imputes to material objects an impossibility from the get-go. It is simply impossible for *O*'s form and matter to depend on one another for their existence *whether or not* *O* has an external sustaining cause.

Fourth, consider again conditional potencies. For all Feser's argument shows, there may very well be a conditional potency within each of form and matter that accounts for why, when combined with the other, form and matter are able to manifest some further "feature" (namely, a tendency to persist).⁴³ If this is true, then all we need is an explanation for why the matter and form were combined *in the first place*, after which the substance's persistence is explained in terms of the conditional potencies of the form and matter.⁴⁴ Return to the chemical species case. The first species will not manifest redness unless the second is present, while the second will not manifest redness unless the first is present. Even if there's *some* sense in which there's a circle of dependence here, all this demands is an explanation for why the two chemical species combined *in the first place*, since the original composition is what actualized the conditional potencies to transition into a state of actuality. (In this case, the conditional potencies explain the *continued redness* in the absence of sufficiently destructive factors.) And once the composition's components have their conditional potencies actualized in the first place, they remain in a state of actuality unless separated by (say) some chemical or physical process.

"But," one may object, "surely that is the very question at issue—namely, whether conditional potencies, once actualized, remain in a state of actuality with respect to one another." This is true. But this shows that we cannot assume from the get-go an answer *either way*. In particular, we would beg the question if we assumed from the get-go that conditional potencies, once actualized, do *not* remain in a state of actuality. But such a presupposition is precisely what Feser needs for his form-matter interdependence argument to succeed. For if form and matter interdepend but also (individually) have the conditional potency to persist in existence once combined, and if conditional potencies, once actualized, remain in a state of

⁴² Return also to No-Change Explanans and Transtemporal Explanans from earlier.

⁴³ By "feature," we don't mean to commit to the view that an inertial tendency is some kind of positive ontological item existing in or exemplified by the object in question. By "manifest a further feature," then, we just mean "behave in a way that neither of its parts on their own (would) behave."

⁴⁴ Again, this is just one proposal among *many* for inertialist-friendly explanations of persistence.

actuality, then vicious circularity does *not* ensue in our explanation of the present existence of some substance. This is because the explanation of the present existence of a substance would not be in terms of form's dependence on matter and matter's corresponding dependence on form. Rather, the explanation would be in terms of (i) the substance's originating cause (which induces the composition of the substance's matter and form), (ii) the actualization of the requisite conditional potency within its form and matter, (iii) the nature of conditional potencies (namely, to remain in a state of actuality once actualized⁴⁵), and (iv) there being no sufficiently destructive causal factors operative. Remember, the onus is not on *us* to show that this *is* how conditional potencies behave; the onus is on *Feser* to show that this *is not* how they behave.

Fifth and finally, as with the Feser's previous argument, the current argument doesn't constitute an objection against EIT *as such*. For this argument, like the previous one, only applies to *material objects*. But we've already seen that inertialists need not be wedded to the claim that the only temporal objects that exist are material objects.

For these five reasons, Feser's second argument against EIT fails.

7.3.6 *Contingent Natures*

Feser offers another argument against EIT from contingent natures. He begins with the following illustration:

To take an example I have often used, suppose you explain, to someone who has never heard of them before (a young child, say), the nature or essence of a lion, of a Tyrannosaurus Rex, and of a unicorn. Then you tell him that, of these three animals, one exists, one used to exist but has gone extinct, and the other never existed and is fictional. You ask him to tell you, based on his new knowledge of the essences of each, which is which. Naturally, he couldn't tell you. For there is nothing in the essence or nature of these things that could, by itself, tell you whether or not it exists. Existence is something *additional* to the essence of a contingent thing. It doesn't follow from such a thing's essence. (2021b)

But suppose we grant all this. All the child should conclude is that—precisely because there is nothing about a contingent thing (or its nature) that tells us whether that contingent thing exists—there must be some other factor that explains why the contingent thing exists. In other words, we need some reason why the contingent thing is in reality at all. But this, of course, is an entirely separate question from why, *once in existence*, the thing *continues to exist*. And, indeed, we would argue that the child would recognize the plausibility of existential inertia as applied to such continued existence. Consider the following dialogue between us and the child.

⁴⁵ How we spell out the metaphysics here may come down to the metaphysical accounts of EIT articulated in the previous chapter.

Us: Suppose something *S* exists immediately before a given moment *m*. Now, for *S* to fail to exist at *m* despite existing immediately before *m* is for some kind of change to occur. Of course, it's not as though *S* undergoes some alteration in this process, since *S* doesn't become something different. But still, there is *some* kind of change here, whether in the ontological inventory of what there is, or in the incorporation of what were previously *S*'s parts into parts of something else, or in the passing away of a state, or whatever.

Child: That seems reasonable.

Us: But changes of state (i.e., cases where some new state comes to be or some old state passes away) plausibly require some cause. It's not as though a raging tiger could just spring into existence uncaused in this room right now; that would require some cause.

Child: Yeah, changes of state plausibly require causes.

Us: So, if there is no cause that induces the relevant change of state, then there won't be such a change.

Child: That is evident, Socrates.

Us: So, if there is no cause that induces *S* to cease to exist at *m*—that is, if there is nothing that comes along to destroy *S*—then *S* will not cease to exist at *m*. And in that case, *S* will persist to *m*. For you granted earlier that *S*'s failing to exist at *m* despite existing before *m* constitutes some kind of change. In particular, it's a change of state in the sense of an old state passing away. And in that case, we can conclude that so long as nothing destroys *S* before and through *m*, then *S* will exist at *m*. We derived this in a manner that removes mystery as to why and how *S* exists at *m*.

Child: That makes sense.

In this (totally realistic) conversation, we have a seemingly perfectly illuminating inertialist-friendly explanation of why *S* exists at *m* once *S* is in existence. The explanation tells us precisely how and why *S* exists at *m*. And whether or not existence follows from the essence of a contingent thing is entirely irrelevant to this point.

Feser continues with his objection: “The point for the moment is this. If nothing about the essence or nature of a thing entails that it *exists at all* in the first place, then it is hard to see how anything about its essence or nature could entail that [it] will *persist in existence* once it does exist” (2021b). But—by way of response—nothing in the exchange above assumes that there was something about the essence or nature of the contingent thing that explains why that thing persists. Totally separate explanatory facts were cited. And so Feser's point doesn't support the denial of EIT.

Our points have broader application than the no-change account proffered in the above dialogue. Similar conclusions will follow for other metaphysical accounts of EIT. In fact, Feser's objection shouldn't even convince those who accept a tendency-disposition account on which (some) temporal things essentially have a tendency to persist. Those who accept such an account will simply retort that if you leave out a tendency to persist in your description of those things' essences, then your description is simply incomplete.

We make two final points in response. First, Feser's argument rests on a non-sequitur. From the fact that <nothing about the nature of a contingent object entails that the contingent object exists>, it doesn't follow that <nothing about the nature of a contingent object entails that, *once in existence*, the contingent object will persist in the absence of both destruction and external sustenance>. Indeed, instances of this inference schema clearly fail. Consider that—by Feser's own lights—nothing about the nature of a contingent object entails that the contingent object exists. But—again, by Feser's own lights—we ought to reject the view that nothing about the nature of a contingent object entails that, *once in existence*, the contingent object will lapse into non-being unless sustained by God. Thus, merely from the fact that <nothing about the nature of a contingent object entails that the contingent object exists>, it doesn't follow that <nothing about the nature of a contingent object entails that, *once in existence*, the object is (or will be) F>.

Second, suppose—contrary to what we've argued—that Feser *did* show or render plausible the claim that contingent things do not enjoy existential inertia. This does not entail that EIT is false. For EIT quantifies over a *subset* of temporal concrete objects. The inertialist could simply hold that while *contingent* things do not inertially persist, there is nevertheless some foundational *necessary* temporal concrete object(s) that inertially persists. In that case, we ought to reject the view that nothing about the necessary foundation demands the foundation's existence or the foundation's persistence; indeed, the opposite is true. Hence, even if—contrary to what we've argued—Feser's argument works, EIT is not threatened. (To be sure, Feser might try to adduce some *other* argument claiming that only the classical theistic God could (in principle) be necessarily existent. But that is a separate argument from the one under consideration, and our sole purpose here is to point out that the argument under consideration need not move an inertialist to abandon their position. And in any case, we think it's obviously false that only the classical theistic God could (in principle) be necessarily existent.)

We wish to address a final argument relating to contingent natures. The argument is that (i) nothing about a contingent thing *x* requires that *x* exist—i.e., nothing about *x*'s nature entails that *x* exists; (ii) if nothing about *x*'s nature requires or entails that *x* exists, then there must be something outside *x* that causes *x* to exist; (iii) if there must be something outside *x* that causes *x* to exist, there must likewise be something outside *x* that continuously sustains *x* in existence if *x* is to persist, since (a) *x* retains precisely the same nature at each moment at which *x* exists, and (b) *x*'s nature doesn't entail or require *x*'s existence; from which it follows that (iv) *x* requires an external sustaining cause. Hence, no contingent thing inertially persists.

In response, and to reiterate the second point above, note first that EIT is compatible with no contingent thing inertially persisting. For EIT quantifies not over *contingent things* but rather *temporal concrete objects*; and it is open to the inertialist to affirm the existence of a necessarily existent temporal concrete object. The argument therefore fails to address EIT *as such*.

Second, the inertialist can simply reject (ii) and opt instead for the principle that (ii*) if nothing about *x*'s nature requires or entails that *x* exists, then there must be

an explanation for why *x* exists. In turn, the inertialist can modify (iii) to (iii*): if there must be an explanation for why *x* exists, there must likewise be an explanation for why *x* persists. But we've already seen several inertialist-friendly explanations of *x*'s persistence that make no reference to external sustaining causes. Hence (i), (ii*), and (iii*) are entirely compatible with contingent things inertially persisting. And no headway is made in the dispute between the non-inertialist and inertialist by simply asserting (ii) and (iii) over and against (ii*) and (iii*). The argument employing (ii) and (iii) against contingent things' inertial persistence therefore fails.

Third, the inertialist can simply reject (iii). From the facts that <(a) *x* retains the same nature as *x* persists and (b) *x*'s nature doesn't entail or require *x*'s existence> and <(b) implies that there's an outside cause of *x*>, it doesn't follow that *x*'s persistence continually requires an external sustaining cause. For it could be the case, in principle, that *x*'s nature *doesn't* require or entail *x*'s existence *simpliciter* but *does* require or entail *x*'s persistence *once in existence*. In that case, while there may need to be an outside cause of *x*'s coming into existence (since nothing about *x* requires that *x* ever exist), whether *x* needs an outside cause for its persistence remains an open question. For it is *false*, in such a scenario, that nothing about *x* requires that *x* persist *once in existence*; and the fact that <nothing about *x* requires that *F(x)*> was precisely what motivated thinking that there must be a cause of *x*'s being *F*. The argument therefore fails.

For these three reasons, nothing in the argument at hand should worry the inertialist.

7.3.7 Vicious Circularity

Feser also charges that EIT is viciously circular (Feser 2021a, b). Applying his objection to an example of a contingent substance (viz. water), he writes:

Existential inertia would be a property or power of the water. So, the water's persistence from *t* – 1 to *t* would, on this account, depend on this property or power. But properties and powers depend for their reality on the substances that possess them. So, we seem to have a situation where the water's persistence depends on that of a property or power which in turn depends on the persistence of the water. (2021b)

We have several responses. First, few (if any) of the metaphysical accounts of EIT developed in Chap. 6 treat inertial persistence as a property or power of substances. We saw that tendency-disposition accounts can be cast in metaphysically lightweight terms that commit to the existence of neither a property nor power corresponding to inertial persistence. In fact, Beaudoin's tendency-disposition account merely cited the *absence* of a tendency to expire in conjunction with the non-exercise of potentially destructive powers. Similarly, transtemporal accounts like the Transtemporal Explanans adduced earlier in the chapter do not postulate a property or power of an object that explains the object's persistence. Instead, what explains persistence is transtemporal explanatory (e.g., causal) connections that

relate the successive phases of objects' lives.⁴⁶ Law-based accounts cite laws of nature, and many such accounts do not treat laws as properties or powers of substances. Clearly neither objectual nor propositional necessity accounts treat inertial persistence as a property or power of objects. Finally, no-change accounts like the No-Change Explanans adduced earlier in the chapter make no appeal to properties or powers of objects. Thus, Feser's criticism here has no teeth against EIT.

To drive this point home, consider again Explanandum, Transtemporal Explanans, and No-change Explanans from earlier. For Feser's circularity objection to work, the explanatory facts in each explanans must presuppose the (explanatorily or ontologically) prior obtaining of Explanandum. But that is simply untrue. Clearly, neither Transtemporal Explanans nor No-change Explanans presupposes the prior reality or obtaining of Explanandum. In other words, none of the explanatory facts cited are dependent upon S's existence at *m*. And in that case, Feser's allegation of viciously circular dependence has no teeth against such explanantia. In none of the explanantia is there a property or power that both *explains* and is explained *by* some fact. And the other metaphysical accounts likewise do not fall prey to charges of vicious circularity.

Note, moreover, that our response here maps onto Audi's distinction between "active" and "passive" senses of existential inertia. As Kerr ([Forthcoming](#)) rightly points out:

Beaudoin maintains that the inertialist is not suggesting that there is some property or power called 'inertia' by which the thing remains in existence. Rather, when the inertialist posits existential inertia he is simply referring to the tendency of things to remain in existence when left alone. In that case then, we can speak of the inertialist position in either a strong sense or a weak sense (or an active or passive sense, to use Audi's terminology). The strong sense would be that there is some property of the thing called 'inertia' by which it remains in existence, something like a self-sustaining existence engine; the weak claim is that inertia covers a description of the thing's remaining in existence when left alone, but it does not pick out any part of the thing by which it is kept in existence.

More generally, we need to distinguish between the *thesis* of existential inertia—a mere description that purports to capture the way reality is—and the *phenomenon* of inertial persistence—things' continuance absent destruction and external sustenance. The thesis does not specify that in virtue of which the phenomenon obtains, and *a fortiori* the thesis doesn't specify that there is some self-sustaining power of the kind Feser needs for his argument to succeed. Hence, Feser's argument fails.

Here's another response to Feser's vicious circularity charge. Suppose—contrary to what we believe—that existential inertia is a property. This would only engender problematic circularity if we accepted the controversial thesis that properties ground character—i.e., that it is in virtue of possessing (exemplifying, instantiating) the

⁴⁶ If we understand causal connections to involve the exercise of powers, then there *may* be a sense in which causal transtemporal accounts like Transtemporal Explanans explain S's persistence by appeal to a *power* possessed by S. But this is a far too simplistic rendering of such accounts, since S isn't pulling itself up by its own causal bootstraps in such accounts; instead, it is the *successive phases of S's life* that enjoy and exercise the relevant powers, and—as already explained—no vicious circularity results therefrom.

property *F-ness* that something is *F*. But suppose we reject this thesis and adopt its opposite: that something possesses *F-ness* is explained by its *being F*. So, for example, that something possesses *redness* is explained by its *being red*. Under this anti-character-grounding view, *pace* Feser, existential inertia's being a property does not entail that the water exists at *m* (or persists from *m*₋₁ to *m*) because the water has the property of existential inertia. Rather, the substance has the property of existential inertia because the substance exists at *m* (or persists from *m*₋₁ to *m*) in an inertial fashion. So *even if* existential inertia were a property, Feser's argument *still* fails. To avert our criticism here, Feser owes us an argument in favor of the (deeply controversial) view that properties ground character. The argument, moreover, should not contain premises the inertialist would simply reject or find unmotivated.

7.3.8 *De Ente* Argument

The next argument against EIT we'll consider derives from Aquinas's *De Ente* Argument for God's existence. We'll focus in particular on Nemes's and Kerr's recent formulations and defenses thereof. Nemes begins his formulation of the argument as follows:

Pat Metheny ... is an existing human being. He therefore is a substance that possesses an accidental *esse* [i.e., existence] of its own in composition with the essence of a human, viz. rational humanity. According to the 'causal principle' of Kerr and Aquinas, he must possess this proper *actus essendi* [i.e., existence] either (a) in virtue of the principles of his nature *qua* human being, i.e. his form and matter, or else (b) in virtue of receiving it from something outside of him. But his possession of being cannot be caused by the principles of his nature, e.g. his *forma substantialis* [i.e., substantial form] (a). (Nemes [Forthcoming](#), p. 7)

Nemes is here expressing a causal principle found in Aquinas, which Kerr (2015, p. 93) translates as follows:

Whatever belongs to a thing is either caused by the principles of its nature (as the capacity for laughter in man) or comes to it from an extrinsic principle (as light in the air from the influence of the sun). (Aquinas 1976, Cap. 4, p. 377)

With the causal principle in hand, Nemes continues: "The possession of *esse* is the absolutely prior condition of the possibility of the causal and explanatory efficacy of these principles of nature" ([Forthcoming](#), p. 7). The idea here is that something's nature must *first* exist in order to cause or do anything at all. "*Esse* is prior to the substance," says Nemes, "which means that it is prior to the composite of *forma substantialis* and *materia prima*" (*ibid*). But the very question to be answered is why Pat Metheny exists at all. Since Metheny's existence—*qua* prior to Metheny's essence—cannot be *explained* by Metheny's essence, it follows from the causal principle that Metheny "must receive his existence from something else" (*ibid*). Since the same is true of *any* being in which essence and existence are distinct, and since chains of entities receiving or wholly deriving their existence from another require a first or primary member, it follows that there is something in which essence

and existence are identical. For Nemes, “This would be ‘something’ which simply is, entirely in virtue of itself: *esse tantum* or pure being” (*ibid.*).

There is much to say in response. First, the argument requires whole swathes of monumentally contentious metaphysical commitments that the inertialist need not accept. For instance, the argument requires a constituent ontology on which features of a thing *compose* that thing (and, in particular, on which the metaphysical principle of *esse* (existence) is a *constituent part* of the substance). The argument also requires (i) a particular brand of realism about essences, (ii) a particular brand of realism about *esse* or existence, and (iii) a view of existence as a first-order property had primarily by substances, rather than (say) a second-order property (i.e., a property of properties) or not a property at all. But the inertialist isn’t (and needn’t be) beholden to these deeply controversial metaphysical commitments.

Indeed, some such metaphysical commitments seem deeply implausible—at least by our lights. Consider that the Thomistic view of *esse* seems to engender a (vicious) infinite regress. Alexander Pruss summarizes the problem nicely:

Consider a puzzle about a given existing thing, say Socrates, on Thomistic principles. Socrates has an essence and an act of existing. When we say that Socrates exists, we are talking about his act, A_1 , of existing—this act of existing is the truthmaker for the claim that Socrates exists. At the same time, the act of existing is itself something that exists—if it did not, it could not ground Socrates’ existing. Socrates’ act of existing is not a necessary being, since then Socrates would be a necessary being. Thus, A_1 itself contingently exists. What is it in virtue of which A_1 itself exists? Well, it does not exist in virtue of A_1 ’s essence, since it is not a necessary being. Thus, it exists in virtue of its own act, A_2 , of existing. And so on *ad infinitum*. Socrates exists in virtue of A_1 , A_1 in virtue of A_2 , A_2 in virtue of A_3 , and so on. (2006, pp. 209–210)

The idea is that surely a thing’s *esse* or act of existence, A_1 , *itself* exists. After all, the proponent of the *De Ente* argument surely doesn’t want to allow the following claim to be true: there is no such thing as *esse*. But then it seems that there must be an act of existence for A_1 . For *esse* is that without which its subject wouldn’t exist (Kerr 2015, p. 166), and so in order for an act of existence to *be* (in any sense), an act of existence must *itself* have *esse*. Thus, A_1 itself has an act of existence, A_2 . But then we can run the same argument with A_2 and conclude that there must likewise be A_2 ’s act of existence, A_3 . And so on *ad infinitum*. We seem led into an infinite (vicious) regress and hence absurdity.

One might respond that A_1 is *identical* to its own act of existence. In that case, A_1 doesn’t have some numerically distinct act of existence, A_2 . In this way, the regress is prevented from arising. But, first, surely only *God*, under Thomistic classical theism, is supposed to be that which is identical to its own act of existence. Second, the act of existence is supposed to be (*inter alia*) that *in virtue of which* something is differentiated from nothing. Thus, the act of existence plays some metaphysically explanatory role. But if A_1 *just is* A_1 ’s act of existence, then A_1 seems to be pulling itself up by its own metaphysical bootstraps—it is somehow grounding its own existence, making itself *to be*, differentiating *itself* from non-existence. But surely something must *already* exist in order to have any grounding or explanatory power, and hence nothing can ground its own existence or make itself *to be*. Third, as Pruss

points out, “On Thomistic principles, such an *esse* would then be a necessary being—since the item itself as a whole would be identical with its *esse*, in particular its essence would be identical with its *esse*. But hence whatever it is that exists in virtue of it would also be a necessary being, and hence... the initial object is a necessary being” (2006, p. 212).

Another response is that the regress is *not vicious*. Not all infinite regresses, after all, are vicious. Consider the benign T-schema regress: letting “ $T(p)$ ” be “ p is true”, we can easily get an infinite regress of the form ... $T(T(T(p)))$. But—as Pruss (in our view rightly) notes—“[t]here is no difficulty in this regress because it is not a regress of grounders. It is not the case that p is true *because* it is true that it is true that p ” (2006, p. 210). But different regresses that *are* vicious seem to be so in virtue of involving *grounding* or *grounding-type relations*. Suppose Ratio has twenty dollars only because Philo wrote him a check for twenty dollars, and Philo has twenty dollars to give Ratio only because Sophia wrote him a check for twenty dollars, and Sophia has twenty dollars to give Philo only because... and so on *ad infinitum*, without bottoming out in anyone with twenty dollars *tout court* in their bank, either in digital currency or in physical bills. In such a situation, we think it’s clear that Ratio *doesn’t*, after all, have twenty dollars. He may have a check *saying* he has twenty dollars; but this check has value only because of another check, which in turn has value only because of another check, and so on *without end*. Nothing in the chain here has *non-borrowed money*; the chain is one of pure borrowing, and the chain doesn’t terminate in anyone (or anything) *with actual money to give*. And, plausibly, this implies that none of the members *truly* has twenty dollars.⁴⁷

But—and here’s the crux—the regress of acts of existence *is* a grounding-type regress. *Esse* is a *principle* of actuality and thereby plays some role in grounding the actuality of that to which *esse* belongs. Thus, it’s plausible that the regress in question *is*, after all, vicious. And even if one denies this—say, because one thinks that appending a primary thing *outside* the infinite dependence regress that grounds *all* the A_i renders the regress non-vicious—it is still *prima facie* absurd to suppose that there are infinitely many acts of existence for each individual (contingent) act of existence.

A still further response to the regress problem is that A_i does not *itself* need or even have an act of existence. The existences of acts of existence come for free—they don’t *themselves* need or have *further* acts of existence distinguishing them from non-being, making them *to be*, or grounding their actuality. One problem for this response is that it seems ad hoc—what motivation is there for positing as much *apart from* trying to avert the objection at hand? A more serious problem is that if there can *be* something (namely, A_i) that doesn’t have an act of existence, why can’t

⁴⁷ Though, for criticisms of this kind of argument, see Oberle (Forthcoming). Note, however, that Oberle’s case isn’t open to the defender of the *De Ente* argument, since Oberle also tackles the arguments that proponents of persistence arguments (including the *De Ente* argument) employ against infinitely descending per se causal chains. In short, the *De Ente* argument *itself* relies on ruling out the possibility of infinitely descending ontological dependence chains of the sort discussed in the main text.

this apply across the board? Why suppose *any* acts of existence are needed for *anything* to be? In essence, once we grant that something can *be* or *exist* without having an act of existence, we seem to lose our motivation for positing acts of existence in the first place.

Pruss' proposed solution to the regress problem is that, for a given contingent thing *x*, *x*'s *esse* just is *x*'s *being caused*. For instance, "the *esse* of Socrates is *Socrates' being caused*" (2006, p. 215).⁴⁸ Initially, we might worry that this doesn't avoid the regress. For *Socrates' being caused* itself exists, and so *Socrates' being caused* must likewise have its own *esse*. The *esse* of *Socrates' being caused* will then be *Socrates'-being-caused's being caused*. In turn, *Socrates'-being-caused's being caused* must also have an *esse*. Regress ensues.

To solve this problem, Pruss proposes that the *esse* of *x's being caused* just is *x*'s cause (or the causal activity of *x*'s cause). "The essence of *Socrates' being caused* is actualized by nothing other than the causal activity of Socrates' cause, whatever that cause might be. ... Socrates' cause, or maybe its *engagement in causal activity*, is the *esse* of *Socrates' being caused*" (2006, p. 215). This proposal *might* ultimately work. Still, it faces several *prima facie* difficulties.

As Pruss recognizes, the proposal must grant that <the *esse* of some positive ontological item *X* exists> does *not* entail that <*X* exists>. For, under classical theism, God is the cause of Socrates (and, indeed, every positive ontological item distinct from God), and God could have existed alone had God freely chosen as much. Hence, per Pruss's proposal, the *esse* of *Socrates' being caused* exists in the world in which God exists alone, since that *esse* just is God himself. Now, in this world, either *Socrates' being caused* exists or it doesn't exist. If *Socrates' being caused* does exist, then the *esse* of Socrates exists without Socrates, since—per Pruss's proposal—the *esse* of Socrates just is *Socrates' being caused*. By contrast, if *Socrates' being caused* does *not* exist, then the *esse* of *Socrates' being caused* exists without *Socrates' being caused*. Either way, the *esse* of some *X* can exist without *X*. To us, this seems implausible. How could there be the *being* or *existence* of *X* without *X existing*? What's more, *esse* is supposed to be that which makes something *be*. How, then, could *X* not *be* if there *is* that which *makes X be*? If we take this "making" to be a kind of grounding, the proposal becomes even more implausible, since it will require us to deny that grounding is a *necessitating* relation. *Esse* is also supposed to differentiate from nothing or non-being that to which *esse* belongs. But it doesn't seem like *esse* could play this explanatory role if there could be *X's esse* while *X* itself is precisely nothing. *X's esse* wouldn't, then, account for the

⁴⁸One potential worry for this account—a worry we won't explore beyond this footnote—is that it seems to make a contingent thing's existence *extrinsic* to said contingent thing, since to say of something that it is *caused* is to characterize it as it relates to something disjoint. But, intuitively, a contingent thing's existence is *intrinsic* to it—to say of something that it exists is to characterize it as it is *in itself*, without thereby referencing something wholly *ad extra*. This criticism is similar to Francisco Suárez's critique of Henry of Ghent's view of *esse*. As Twetten (2006) summarizes the criticism, "To say of a thing 'it is' predicates not something relative but something 'absolute' of the thing" (p. 91).

difference between there *being* such a thing as X and there *not* being such a thing as X, since X's *esse* is present in both situations.⁴⁹

Much more can be said about the metaphysics underlying the argument, but that will suffice for present purposes. Let's consider, then, our second reply to Nemes: his argument (and, by extension, the *De Ente* argument) arguably requires *ontological pluralism* or *pluralism about being*.⁵⁰ For suppose—as ontological monism would have it—that there aren't different ways to exist or modes of being. In that case, God enjoys the same generic existence enjoyed by everything else. But—per DDS—God is *identical* to everything God *has*, and hence God is identical to God's existence. But in that case, God is identical to generic existence—the existence that you and everything else shares (under monism). But your existence, as Nemes explicitly says, is a *constituent part* of you. God would therefore be a *constituent part* of you, which contradicts classical theism. So, the *De Ente* argument (conjoined with DDS, which is plausibly an *entailment* of the *De Ente* argument's conclusion so long as we take the conclusion to deliver *God's* existence) requires pluralism about being. But the argument will then fall flat for those (like us) who accept ontological monism rather than ontological pluralism.⁵¹

Third, consider again the causal principle underlying the argument: if x is F, then either (a) x's being F is caused by the principles of x's intrinsic nature, or (b) x's being F is caused from without by y—that is, x's being F is caused by some y such that y is extrinsic to (i.e., outside of, external to, disjoint from) x.⁵² For starters, this principle—as currently stated—is *compatible* with x's inertially persisting provided that x was *caused* to begin to exist. For if x was caused to begin to exist, then x's existing *is* caused from without. The cause, though, is merely an *originating* (rather than continuously *sustaining*) cause. Second, the inertialist will likely reject the principle, and for good reason. The inertialist will say, instead, that if x is F, then x's being F is *explained*—either by the intrinsic nature of x, or by an extrinsic cause, or

⁴⁹ Another potential problem is that *God* would then be the *esse* of some non-God positive ontological item. But that would seem to imply that *God* enters into composition with the essence of some non-God item. And this is debarred by classical theism—God does *not* enter into composition with anything.

⁵⁰ According to ontological pluralism, there are multiple ways of being or modes of existence. According to ontological monism, there is only one way of being or mode of existence.

⁵¹ See Merricks (2019) for a recent argument against pluralism, and see Schmid (2021c, Sect. 7.13) for an extension and application of this argument in the context of the *De Ente* argument.

⁵² This is essentially how Kerr (2015, p. 95) puts it. He writes: “if something, *x*, possesses some property, *F*, then *x* possesses *F* either as a result of the principles of its own intrinsic nature, its *x*-ness, or as a result of some extrinsic principle(s), *y*.” Kerr goes on to explain that “as a result of” signifies *causality*.

by some *non-causal* explanation.⁵³ Not all explanations adduce causes, and this explanatory version of the principle is equally well-supported by both empirical and *a priori* considerations as the causal version. And, importantly, we saw in Chap. 6 that there are many explanations of why an inertially persistent object (x) exists at a given non-first moment of its life (F) that do *not* adduce extrinsic efficient sustaining causes.

The first of these worries is not an issue, though, for the principle can be modified as follows: if x is F at time t, then either (a) at t, x's being F is caused by the principles of x's intrinsic nature, or (b) at t, x's being F is caused from without by y. But as with the unmodified principle, this modification succumbs to the second worry articulated above. There need not be an extrinsic efficient sustaining *cause* of x's being F at t (when F isn't caused by x's nature); there need only be an *explanation* of x's being F at t.⁵⁴ And, once more, as we saw in Chap. 6, explanations abound for the inertialist.

Kerr (2015, pp. 100–105) considers whether (i) there could be any uncaused non-intrinsic⁵⁵ properties of a thing, and, more specifically, (ii) whether existence could be uncaused in one or more essence-existence composites. In order to complete our third reply to Nemes's argument, then, an evaluation of Kerr's reasoning is in order. Kerr writes:

To begin with (i), that there are no uncaused non-intrinsic properties, it must be borne in mind that Aquinas applies his causal principle so as to account for a fact requiring explanation: that is to say, if one can ask and answer the question of why a thing possesses a certain property, then one can offer a causal explanation for the possession of that property. (*Ibid.*, p. 100)

We have one note and two responses. The note is that in appraising Kerr's case, we will grant *arguendo* the truth of constituent ontology, realism about essences, realism about existence, and so on. Now let's consider our two responses.

⁵³ A complication arises when we consider that, plausibly, *all* global explanatory hypotheses—including that purportedly delivered by the *De Ente* argument—have one or more primitive (basic, fundamental, foundational, not-further-explained) entities and (perhaps) properties (else: predicates). For instance, God (x) is good (F), but God's being good, under classical theism, is caused neither by God's intrinsic nature nor an extrinsic principle. We can set this complication aside, though, since (i) we are focused, in the main text, on non-fundamental things, and (ii) the principle can be modified to say something like <if x is F, then (i) if we have sufficient, principled reason to think x's being F is a fundamental fact, then x's being F is unexplained, and (ii) if we *don't* have sufficient, principled reason to think x's being F is a fundamental fact, then x's being F is explained>. Alternatively, we could restrict the explanatory principle to (say) *contingent* cases of x's being F, or cases where x is an *axiologically limited* being (i.e., not a perfect or axiologically supreme being), or whatever.

⁵⁴ At the very least, nothing Nemes says gives the inertialist any reason to *abandon* this explanatory principle, which is what he would *need* to do for his argument against EIT to have dialectical teeth.

⁵⁵ Kerr's use of "intrinsic" here doesn't track the notion we articulated in Sect. 1.2.3. Instead, as Kerr uses it, a property is *intrinsic* to O just in case O "does not possess [said property] as a result of the principles of its nature" (Kerr 2015, p. 99).

First, if Aquinas applies his principle in order to account for facts needing explanation, then if we have principled reasons to think that there is some fact that *doesn't* need an explanation, Aquinas's principle would seem to be inapplicable. But why can't the fact that a specific essence-existence composite object exists be one such fact not needing an explanation?

In fact, this is precisely what non-classical theists hold. Under both classical *and* non-classical models of God, the unique foundation of reality is a metaphysically necessary, unlimited, axiologically supreme, perfect being upon which everything else depends. But so long as the non-classical theist has principled reason to think that a perfect being exists, they thereby have a principled reason to think that this perfect being's existence is *uniquely unexplained*. And this is true *regardless* of whether this perfect being is such that its essence is numerically distinct from its existence, since God's status as uniquely unexplained plausibly falls out of God's perfect and unlimited nature. It's intuitively plausible (at least for theists generally) that perfection—axiological supremacy and unlimited value—precludes dependence on something else. In that case, there's independent reason to think that a perfect being—even if (under non-classical theism) the being's essence and existence are distinct—is uniquely unexplained (and, indeed, unexplainable).

According to these non-classical theistic views, only finite, limited, imperfect, contingent things cry out for further explanation. But this cry is entirely silenced when we consider an infinite, unlimited, perfect, necessary being. There is no mystery as to why such a being is uniquely unexplainable, and there are principled, independent reasons for thinking as much—reasons entirely separate from considerations about the essence-existence distinction. Aquinas's principle, then, is impotent to establish that an infinite, unlimited, perfect, necessary being requires a cause by dint of its being an essence-existence composite. For, again, it is clear that such a being *couldn't* have a further explanation. And as Kerr points out, Aquinas applies his principle precisely to account for those facts that *do* require further explanation.⁵⁶

Second, the principle <if one can ask and answer the question of why a thing possesses a property, then one causally explain the possession of that property> seems false. Suppose Stephen is hanging out with two friends, Cameron and Joe. Suppose Stephen has 23 cookies and wants to give each of his two friends the same whole number of cookies without any left over. To Stephen's dismay, he finds that he can't do this. What explains the fact that Stephen's desire has the property *being frustrated*? The explanation is in terms of *mathematical constraints*: 23 cannot be

⁵⁶The same reasoning applies to non-theists who have principled reasons for thinking that some layer of natural reality (say, a necessarily existent foundational quantum field or universal wave-function or whatever) couldn't be explained in principle. And such independent reasons aren't too difficult to come by: suppose one is convinced by Pruss and Rasmussen (2018) that there is at least one foundational necessarily existent concrete object, and suppose further that one has strong reasons to think theism is false (deriving from, say, arguments from evil, or divine hiddenness, or religious diversity, or paradoxes of omniscience or perfect rationality, or theory-comparison reasons, or whatever). Then, one has independent reason to think that there is some non-theistic necessary being that is unexplainable in principle. And as we point out in the main text, this will debar the need for a cause regardless of whether such a being is an essence-existence composite.

divided by 2 to yield a whole number. Importantly, though, this is not a causal explanation. The relevant non-divisibility of 23 isn't *causing* Stephen's desire to be frustrated. Nevertheless, it *explains* the frustration of Stephen's desire. And, indeed, this is the *only* explanation of why the desire is frustrated. (We are not asking why Stephen exists, or why his desire exists, or whatever; we are asking why the relevant desire is frustrated *given* that he exists, has the relevant desire, and so on.) The principle Kerr adduces, then, is false. For we can ask and answer the question of why Stephen's desire possesses a property, and yet we can only *non-causally* explain the possession of that property. This is also a point more generally recognized in the literature on explanation (e.g., Lange (2018, p. 1345), Swenson (2016, p. 661), and Climenhaga and Rubio (Forthcoming)). Climenhaga and Rubio give an example of someone unwittingly losing a bet that they could pick eight people at random, none of whom were born on the same day of the week. Here, "losing the bet is non-causally explained by the mathematical fact that you can't match up eight birthdays with seven days without at least two birthdays falling on the same day (the pigeon-hole principle)" (Climenhaga and Rubio Forthcoming). And there are many more examples besides (e.g., explaining the success of mature scientific theories by their truth).⁵⁷

Kerr does consider the prospect of uncaused properties:

But if such properties are uncaused, there is no explanation for why they exist in the thing, that is, there is no explanation of why they are there. Granted that it is a fact they are, such a fact is without explanation.... If the objector grants that there is an intelligible framework within which beings can be analysed and accounted for, then such uncaused non-intrinsic properties must be primitive. (*Ibid.*, p. 101)

There are two problems with this. First, these are mere assertions. Kerr *asserts* but *does not justify* the claim that uncaused properties are unexplained. (Remember, the

⁵⁷ Our point in this paragraph depends in part on what is meant by "cause". If by "cause" we simply mean *explanation*, then *of course* the mathematical facts here "cause" the various explananda. But if *that* is what we mean by "cause", then EIT is perfectly compatible with the existence of essence-existence composites being caused at each moment at which they exist. All this would require is that they be *explained* at each such moment, and all *this* requires is a metaphysical account of EIT. Thus, if *this* is what we have in mind by "cause", then establishing that there must be a cause of essence-existence composites—even a cause of their existence at any moment at which they exist—is *not* sufficient for showing that EIT is false, or that there must be a *sustaining efficient* cause of essence-existence composites (in the sense of something that continuously and concurrently acts to *produce or bring them about*). We should note that as Kerr understands "cause", a cause is "that on which" an effect "depends and from which it derives", which in turn is understood in terms of act and potency: "a cause is what actualises the effect and the effect thereby stands in potency to it" (2015, p. 97). For Kerr, then, "cause" encompasses various (purported) classes thereof: material, formal, efficient, and final. Perhaps Kerr will thus maintain that the mathematical facts in our situations provide *formal causal* explanations, and so they *do* cause the relevant facts. If so, that's fine by us—what we intend to show here is simply that not all explanations of concrete facts adduce efficient causes, and that the existence of (some) temporal concrete objects could easily be *explained* without recourse to any extrinsic sustaining efficient cause (or ground). We will hereafter set this terminological point aside, since it is only tangential to the metaphysics of the matter.

onus of justification in this dialectical context is on the *proponent* of the *De Ente* argument to refute EIT. For *they* are the ones leveling an argument aiming to disprove EIT, and hence the onus is not on the *detractor* of the argument to *positively show* why or how some uncaused property is nevertheless explained.)

Second, Kerr's claims here are mistaken. Kerr takes the fact that there is no causal explanation to imply that there is no explanation at all. But this is untrue. The mathematical constraints that explain the frustration of Stephen's desire do not *cause* Stephen's desire to be frustrated. Since the mathematical constraints alone explain why the desire is frustrated (given, of course, that Stephen exists, that he has this desire, etc.), we have a case of uncaused-but-explained property possession. More fundamentally, the proposition that <if S's existence at a non-first moment of S's life has no (concurrent sustaining) cause, then S's existence at a non-first moment of S's life has no explanation> is false. We have already seen in Chap. 6 that there are whole swathes of inertialist-friendly explanations of persistence on which this conditional has a true antecedent but false consequent.

All of this, moreover, is highly germane to the *De Ente* argument against EIT. As Kerr rightly points out,

The upshot of the objection that there could be non-intrinsic, uncaused properties is that if correct, it would entail that one cannot move from the distinction of essence and *esse* to the caused character of *esse* in essence-*esse* composites, and because setting up a causal series in the line of *esse* is essential to the argumentation that Aquinas is making, the possibility that *esse* could be an uncaused yet distinct (non-intrinsic) property of a thing would undermine Aquinas's argument from the outset. (*Ibid*)

If our above responses work—and if the metaphysical accounts of EIT from Chap. 6 are defensible, at least by the inertialist's lights—then the *De Ente* objection to EIT is undermined. Indeed, it should be clear by now that we actually don't need—in the present dialectical context—to *positively show* that the metaphysical accounts of EIT are defensible. We only need the weaker claim that neither the *De Ente* argument nor what its proponents (e.g., Nemes, Kerr) say on its behalf gives those who *accept* (or are agnostic on) one or more of the metaphysical accounts of EIT sufficient reason to *abandon* their position and instead affirm that all such accounts fail. And this weaker claim is, we think, clearly true. Thus, the *De Ente* objection to EIT is undermined.

Recall that Kerr is interested in whether (i) there could be any uncaused non-intrinsic properties of a thing, and (ii) whether existence could be uncaused in one or more essence-existence composites. Having argued that Kerr's case against (i) fails, we will now turn to his case against (ii).⁵⁸ He writes:

Esse stands to essence as act does to potency, such that *esse* is what actualises essence and makes it exist. No essence would thus exist without *esse*. Given that essence would not exist without *esse*, why does some existing essence have *esse* in the first place? Even though *esse*

⁵⁸We should note that EIT is compatible with the existence of inertially persistent objects being caused at non-first moments of their lives; EIT only debars that they be *concurrently* caused at such moments by something *ad extra*. If the cause is intrinsic to the inertially persistent object, EIT will be preserved; and if the cause isn't concurrent but (say) transtemporal, EIT will again be preserved.

is primitive and there is nothing more fundamental than *esse*, its being composed with some essence is not primitive; and since the essence with which it is composed does not possess such *esse* essentially, it possesses it from without. (*Ibid*, p. 102)

We have two replies. First, at least in the case of neo-classical theism, *the very question at issue* is whether there is some essence such that its composition with *esse* is primitive (i.e., not dependent on anything else). The very question at issue, in other words, is whether there is (or can be) an essence-existence composite (viz. the God of neo-classical theism) whose existence is not derived from something else. It is question-begging, then, to simply assert that *esse*'s being composed with some essence is not primitive.⁵⁹ The same goes for non-theist accounts of a necessary foundation. Second, even if the composition of *esse* and essence is not primitive (i.e., even if there is some further explanation for why they are composed—including an explanation for why they're composed at any given moment of an object's existence), EIT's falsity doesn't follow. For—as we've seen—there are whole swathes of inertialist-friendly explanations of the *esse* of essence-existence composites at non-first moments of their lives.

Kerr continues:

So, why does it thus possess *esse*? What is the cause of that essence's *esse*? These are not unreasonable requests, and so the burden of proof is on the objector to show how that in which essence and *esse* are distinct could have *esse* and thus actually exist without its *esse* being caused. (*Ibid*)

But, first, this response illicitly shifts the onus of justification. *Kerr* is the one offering a *positive argument* in the present dialectical context. The onus is therefore not on the *detractor* to *positively show* how there *could* be an uncaused essence-existence composite; the onus, instead, is on *Kerr* to show that there *couldn't* be an uncaused essence-existence composite. Without showing this, a claim key to the *De Ente* argument is simply unjustified. Second, even ignoring the illicit burden-shifting maneuver, we've developed a variety of metaphysical accounts of EIT, and such accounts—granting *Kerr* his constituent ontology, realism about essences and *esse*, and so on—represent workable accounts on which at least some essence-existence composites continue to exist without continuously concurrent causal sustenance from without. They therefore directly answer the challenge to spell out accounts on which an essence-existence composite can exist at a non-first moment of its life without a (concurrent sustaining) cause. (Keep in mind that there may, of course, be *transtemporal* causation at play, à la some transtemporal accounts.)

Finally, *Kerr* writes:

Given the above, I submit that (ii) [the claim that existence could be uncaused in an essence-existence composite] can be rejected because insofar as *esse* is related to essence as act to potency, yet no essence-*esse* composite need ever exist, there is a cause for the *esse* that the essence enjoys. (*Ibid*)

⁵⁹ We assume—quite innocuously, by our lights—that by “some” *Kerr* means “any.” At least, this is what he would *need* to mean for his case to go through (applying, as he wants it to, to *all* essence-existence composites).

We have two responses. First, Kerr simply *asserts* but *does not justify* that no essence-existence composite need ever exist. Neo-classical theists, panentheists, and non-theists who accept a necessarily existent foundation of reality will all simply reject that no essence-existence composite need ever exist. (Assuming, of course, that they grant realism about essences and *esse*, a constituent ontology, and so on.) More generally, Kerr's claim is rejected by those who accept (e.g.) the objectual necessity account of EIT. Nothing Kerr says here gives any reason to rule out such views.⁶⁰ Second, even if a given essence-existence composite need not exist (or need not exist at non-first moments of its life), all that follows from this (by our lights) is that there needs to be an *explanation* of its existence (or existence at non-first moments of its life). (At the *very* least, Kerr has failed to justify why a *sustaining efficient cause* is needed rather than a mere *explanation*.) But as we've seen, there are lots of explanations that make no reference to (sustaining) causes.

We conclude, then, that our third reply to Nemes—even in light of Kerr's case—remains forceful. Our fourth and final reply is a *Moorean* one. The *De Ente* argument, if successful, entails the Big Four: DDS, timelessness, immutability, and impassibility. But even if one cannot pinpoint precisely where an argument goes wrong, one is well within one's rights in denying the conclusion and inferring the disjunction of the negations of the premises *so long as* one has sufficiently strong independent reasons to think the conclusion is false. But for many non-classical theists and non-theists, this condition is met with respect to the Big Four. We will develop (what we take to be) formidable challenges to classical theism from abstracta (Chaps. 9 and 10), and we've already covered an argument against classical theism from God's changing knowledge (Sect. 7.2.2). One of us (Joseph) has also defended a variety of arguments against (one or more of) the Big Four elsewhere—see Schmid and Mullins (2022) and Schmid (2021a, b, 2022a, b, [Forthcoming](#)).⁶¹

We'll conclude this section by addressing Kerr's ([Forthcoming](#)) recent criticisms of EIT. Kerr writes:

Things in which essence and *esse* are distinct do not have existence in virtue of what they are, since prior to their having existence they are nothing; rather, they have it from without, i.e. extrinsically. But if existing things have existence from without as distinct from their

⁶⁰ Note that the proposal here is *not* that the necessary foundational essence-existence composite is such that its existence is caused by the principles of its essence. The proposal, instead, is that the essence necessarily exists and that the conjoined-ness of its essence and existence is either primitive, or explained by its being metaphysically necessary (which is in turn taken to be primitive), or explained by one of the avenues for explaining N's (necessary) existence canvassed in Sect. 6.5. And as we saw earlier, there are (or can be) principled reasons for affirming such a primitive element.

⁶¹ For responses to the argument in Schmid and Mullins (2022), see Pawl and Grant ([Forthcoming](#)) and Sijuwade (2022). For a response to Pawl and Grant on behalf of the argument, see Schmid (2021a). I (Joseph) haven't responded to Sijuwade (2022) because (i) I think Sijuwade averts the argument (in part) by employing a *non-traditional* DDS, which isn't the target of the argument, and (ii) Sijuwade's response appeals to *qualitative self-differing*, where one thing qualitatively differs from itself. But I find this implausible; I think numerical sameness entails qualitative sameness.

essences, then they derive it from some cause distinct from themselves, in which case existence is caused in them. Now, insofar as the subject of existence would be nothing without this existence that it derives extrinsically, unless there were a cause for the existence of the subject in which the latter participates in order to be, the subject would be literally nothing; for it does not in itself have the wherewithal to exist in itself. Hence, so long as such things have *esse* but are not identical to the *esse* that they have, they are causally dependent for their *esse*. (*Ibid*)

Here's our reconstruction of the reasoning here:

1. Prior to an essence-existence composite's having existence, the essence-existence composite is nothing.
2. If (1), then essence-existence composites don't have existence in virtue of what they are.
3. If essence-existence composites do not have existence in virtue of what they are, then essence-existence composites have existence from something *ad extra*.
4. If essence-existence composites have existence from something *ad extra*, then essence-existence composites are nothing unless they participate in a cause of their existence.
5. If essence-existence composites are nothing unless they participate in a cause of their existence, then in order to *continually* exist, then essence-existence composites must continually participate in a cause of their existence.
6. If, in order to continually exist, something must continually participate in a cause of its existence, then that thing does not inertially persist.
7. Hence, no essence-existence composite inertially persists. (1–6)

We have several replies. First, as we've seen, the inertialist need not accept the metaphysics underlying the argument. Setting that aside, though, let's consider each premise in turn. One difficulty that arises with premises (1) and (2) is that prior to *anything's* existing, that thing is nothing. For if *x* were something *prior* to its existence, then *x's* existence would be prior to its existence, which is absurd. There is thus nothing special about essence-existence composites here—even prior to the existence of something in which essence and existence are identical, that thing is nothing. In that case, though, premise (2) would entail the conclusion that *nothing* exists in virtue of what that thing is. For if (as premise (2) says) not existing in virtue of what *x* is *follows upon* the fact that prior to *x's* existence, *x* is nothing, then—since the latter is true of *everything*—one can infer that *nothing* exists in virtue of what that thing is. But this, of course, is incompatible with the very *De Ente* argument Kerr is proffering, since such an argument concludes that there is something that *does* exist in virtue of what that thing is and that imparts existence to everything else that *doesn't* exist in virtue of what those other things are.

More generally, it's not at all clear that there *could* be anything that exists in virtue of what it is, i.e., anything whose essence metaphysically explains its existence. For this thing's essence and existence are either distinct or identical. If they're distinct, then its essence would have to be prior to its existence in order to metaphysically explain it. But, plausibly, nothing's essence can be prior to its existence, for then the thing's essence would *already exist* prior to its existence, which is

absurd. By contrast, if something's essence and existence are identical, then we would have something's existence metaphysically explaining itself. For if a thing exists *in virtue of* its essence and the thing's essence *just is* the thing's existence, then the thing exists in virtue of its existence. Plausibly, though, this kind of metaphysical bootstrapping is impossible. Something's existence cannot pull itself up by its own metaphysical bootstraps; that is, something's existence cannot metaphysically explain *why there is that very existence* to begin with. Metaphysical explanation, in other words, is *irreflexive*. For *x* to metaphysically explain *y*, *x* must be prior to *y*, so as to account for why there is any such thing as *y* to begin with—ever, at all. And nothing is prior to itself. Either way—whether *x*'s essence and existence are distinct or identical—*x* cannot exist in virtue of what *x* is.

But suppose you deny the irreflexivity of metaphysical explanation. Suppose, in other words, that in order for *x* to metaphysically explain *y*, *x* *need not* be prior to *y*. Then it's not at all clear that an essence couldn't metaphysically explain its existence despite being distinct therefrom, since—per our supposition—the former *need not* exist *prior* to its existence in order to *explain* its existence. Thus, the absurdity that led us to deny that an essence could explain its existence (from which the essence is distinct) would be removed, and with it a key justificatory step in the *De Ente* argument. So, proponents of the *De Ente* argument face a dilemma: either <in order for *x* to metaphysically explain *y*, *x* needs to be prior to *y*> is true or false. If it's true, then—contra the *De Ente* argument—nothing, not even something in which essence and existence are identical, exists in virtue of what it is. If it's false, then a key step in the *De Ente* argument fails (to wit, the step ruling out an essence-existence composite existing in virtue of what it is). Either way, the *De Ente* argument fails.

So much, then, for premises (1) and (2). What about premise (3)? We have two replies. First, nothing in the argument or what's said on the argument's behalf in Kerr ([Forthcoming](#)) rules out a situation in which an essence-existence composite has existence *neither* in virtue of what that essence-existence composite is *nor* in virtue of something *ad extra*. In such a case, the essence-existence composite in question would not have existence *in virtue of* or *from* anything. Suppose that neo-classical theism is true. The neo-classical God's essence, we can suppose, is not numerically identical to the neo-classical God's existence. The neo-classical God, then, is an essence-existence composite.⁶² Nevertheless, the neo-classical God is the necessarily existent, unlimited, perfect, ultimate foundation of everything else. The neo-classical God therefore doesn't exist *in virtue of* anything. Instead, the neo-classical God is uniquely unexplained.⁶³ Everything else is explained ultimately by

⁶² Most neo-classical theists would reject the underlying metaphysics that leads to this, of course. But recall that we're setting that rejection aside for present purposes. (Cf. our first reply to Kerr's ([Forthcoming](#)) criticism.)

⁶³ Even if one wants to affirm that the neo-classical God's existence is explained in terms of God's *perfection* or *necessary existence* or some such, we can simply focus on *that further fact* about God which explains God's existence and which is uniquely unexplained. Nothing in our argument hangs on this.

the neo-classical God. We therefore have a case wherein *not* every essence-existence composite has its existence *in virtue of* or *from* something else. To be sure, *Thomists* would reject this view. But that's irrelevant. What matters is that *nothing in the argument above or what's said on its behalf* gives those who *do* hold such a view (or are *agnostic* on said view) sufficient reason to *abandon* their position. And in that case, premise (3) is dialectically toothless. (Once more, the same reply can be offered with a *non-theistic* necessary foundation *mutatis mutandis*.)

One might object that any view which allows there to be nothing in virtue of which an essence-existence composite exists suffers from an untoward *bruteness* or *inexplicability*. But this is simply untrue. First, we can give *principled reasons* for thinking that something perfect, unlimited, and necessarily existent—*unlike* that which is imperfect, limited, and/or contingent—is uniquely unexplained. Rasmussen (2019) argues, for instance, that limitation, contingency, and imperfection—unlike that which is unlimited, necessary, and perfect—seem to call out for deeper explanations. (Moreover, having one's existence owed to another is plausibly a limitation or imperfection; hence, whatever is unlimited and perfect doesn't have its existence owed to another.) Second, such views can accept very robust versions of the principle of sufficient reason (PSR)—e.g., that whatever is contingent, imperfect, or limited requires an (outside) explanation. And, importantly, there doesn't seem to be any unique advantage accrued to someone who instead adopts a version of the PSR to the effect that every essence-existence composite requires an (outside) explanation, and nor does there seem to be any reason favoring such a principle that doesn't equally favor the former, neo-classical-theist-friendly principle.⁶⁴

Our second reply to premise (3) is that “having existence from something *ad extra*” is ambiguous. (3) could mean having existence *caused* by something else, *or* could mean having existence *explained* by something else. But if the former is meant, then the inertialist will simply reject premise (3)—at least if we're focusing on an essence-existence composite at non-first moments of its life. (To *assert* (3), then, would be to beg the very question at issue.) For even if an entity's existence at a non-first moment of that entity's life is not due to its essence, the entity could still be *explained* without reference to any (sustaining efficient) cause. This, of course, was the purpose of the metaphysical accounts of EIT. By contrast, if the latter is meant, then premise (4) is simply false. For it does *not* follow from the fact that *x*'s existence is *explained* by something other than *x*'s essence that *x*'s existence must thereby participate in a *cause* in order to exist. As we've seen, not all explanations are (sustaining efficient) causal explanations. The explanation—at least for non-first moments of *x*'s life—could instead employ a metaphysical

⁶⁴ For instance, Pruss's (2006) arguments for the PSR don't favor the essence-existence version of the PSR over the neo-classical-theist-friendly version, and nor do the other arguments for the PSR of which we are aware (e.g., those in Pruss and Rasmussen (2018, ch. 3), Pruss (2009), Feser (2017, ch. 5), and Koons and Pruss (2021)). We would argue that the same holds true for non-theist-friendly versions of the PSR that quantify only over *contingent* things (thereby allowing for a non-perfect, limited, but necessarily existent natural foundation of reality), but we won't pursue that here.

account of EIT. Nothing in the argument at hand offers *any* reason against *any* such account.

Let's now consider another aspect of Kerr's criticism:

Unlike colour properties, there is no subject in which *esse* can subsist and remain, in which case the existence of any essence/*esse* composite does not subsist in itself, but is caused therein; and without such a cause the composite itself would cease to be. A thing cannot obtain *esse* and retain it by itself (like the chair becoming red and staying red), since a thing is nothing in virtue of itself (whereas the chair is still something even if it isn't red). (Kerr [Forthcoming](#))

But merely from the fact that something does not exist in virtue of itself (i.e., in virtue of what that thing is), it doesn't follow that the thing thereby exists in virtue of a sustaining efficient cause. The thing may have no explanation for its existence (consider, e.g., some understandings of the neo-classical theistic God's existence or some foundational necessarily existent non-theistic reality), or the thing may have an explanation for its existence (and continuance therein) that makes no reference to sustaining efficient causation.

Kerr then considers and criticizes three different metaphysical accounts of inertial persistence. The first account is, broadly speaking, a transtemporal account: "a thing's past existence influences its future so that as long as a thing exists in the past and nothing prevents it from reaching its future, a thing will continue to exist absent competing causal factors" (Kerr [Forthcoming](#)). In response to this account, Kerr writes:

On the contrary, given the distinction of essence and *esse* in things, a thing exists past, present, and future precisely because it has an act of existence by which it is. It is the thing's participation in *esse* which accounts for its being at any time. And, as argued above, insofar as a thing has this act of existence distinct from its essence, there is a cause for this act of existence without which cause the thing would not be. Consequently, at any time that a thing exists it is being caused in its existence. (*Ibid*)

This response, however, doesn't work. For, as we saw in our second reply to premise (3), Kerr's argument aiming to establish a cause for this act of existence *assumes* that no metaphysical account of EIT succeeds. Kerr cannot then *use* this argument to *dismiss* one such metaphysical account. What's more, the inertialist could equally argue as follows: "On the contrary, even if essence and *esse* are distinct in x, x *enjoys* an act of existence at a given non-first moment m of x's life *precisely because* (i) a transtemporal explanatory relation obtains between x-before-m and x-at-m, and (ii) no sufficiently destructive factors operate in the interim." To be sure, this provides Kerr no reason to abandon Kerr's position; but that isn't the point. The point is that the same is true of Kerr's response to the transtemporal account in question—the response provides inertialists who accept the account no reason to abandon their position.

The second account Kerr considers is, broadly speaking, a tendency-disposition account: "a thing does not tend to non-existence which tendency needs to be overcome by a cause of existence; rather the default mode is for the thing to remain in existence until some cause knocks the thing out of existence" (Kerr [Forthcoming](#)). In response to this account, Kerr writes:

On the contrary, given the distinction between essence and *esse*, a thing is nothing without its act of existence. Absent the act of existence, a thing simply is not. It is not natural for an essence/*esse* composite to be, precisely because *esse* is not part of the essence of [the] thing. The default setting for a composite of essence and *esse* is not to continue in being, but to be nothing. Accordingly, there is indeed ‘something’ that needs to be overcome for the composite of essence and *esse* to be, and this is the thing’s own nothingness; for as long as the essence/*esse* composite exists, its own nothingness is being overcome through its possession of *esse*, which *esse* it does not possess of itself but through another on which it depends. (*Ibid*)

This response, though, doesn’t work. Our first reply is that from the fact that it is not natural for *x* to exist—i.e., it is not of *x*’s very nature to exist—it doesn’t follow that it is not natural for *x* to *persist once in existence*. Even granting Kerr’s other points, all Kerr has shown is that an essence-existence composite does not *exist by default*. But it’s an entirely separate question whether, *once in existence*, it *persists* by default. And, indeed, this is precisely what at least some tendency-disposition accounts affirm: even though there may be nothing about *x* itself that demands that *x exists*, there *is* something about *x* that demands that—*once x exists*—*x* persists absent destruction. One might retort that *x*’s existence is *continuously* distinct from *x*’s essence, in which case *x* is *continuously* non-existent by default. But the inertialist attracted to the tendency-disposition account in question can make two replies. First, the inertialist can reject that continuous-non-existence-by-default follows from continuous-distinction-between-essence-and-existence, *precisely because* things enjoy a natural tendency to persist. For if things enjoy such a tendency, then while they may be non-existent by default, they will *persist* by default (even if their essence and existence are continuously distinct).⁶⁵ Second, *even if* continuously-non-existent-by-default followed from continuous-distinction-between-essence-and-existence, the inertialist can say that this only implies that if *x* is to continually *exist*, there needs to be some *explanation* for such continuance. But, of course, not all explanations of continuance must adduce sustaining causes, as illustrated by the various metaphysical accounts of EIT, *including* tendency-disposition accounts.

Our second reply is that the claim “something in which essence and existence are distinct does not possess *esse* of itself but through another on which it depends” is ambiguous. The dependence in question could mean concurrent, sustaining causal dependence, or it could mean explanatory dependence. If the former, then Kerr’s response above simply begs the question—the very question at issue is whether things that don’t exist of themselves (i.e., as a result of their natures) depend on some concurrent, sustaining cause in order to exist. But if the latter, then the

⁶⁵ This response, moreover, is not at all question-begging. The onus of justification here is on the one aiming to positively demonstrate the falsity of EIT. Thus, the inertialist need only point out that nothing in their opponent’s argument gives them any reason to abandon their position. And since (as we argued in the main text) asserting <continuously-non-existent-by-default follows from continuous-distinction-between-essence-and-existence> assumes the falsity of the tendency-disposition account in question, it gives the inertialist who *accepts* such an account no reason to abandon their position.

inertialist can *agree* that things that don't exist of themselves require an explanation for their (continued) existence. For there are whole panoplies of inertialist-friendly explanations of continued existence. Again, while this provides *Kerr* no reason to abandon *Kerr's* position, that isn't the point. The point is that *Kerr's response* provides inertialists no reason to abandon such metaphysical accounts.

The third account *Kerr* considers is difficult to classify, but it seems analogous to a no-change account: "a thing's existence is simply the fact that there is a thing of that kind in the world, and so long as no competing causal influence comes along to alter that fact, a thing will remain in existence" (*Kerr Forthcoming*). In response to this account, *Kerr* writes:

[T]he Thomist will still ask about the *esse* of the thing, and given the reasoning found throughout Aquinas's work on the distinction between essence and *esse*, no essential component of a composite of essence and *esse* can account for the *esse* of the thing. Hence a composite of essence and *esse* is dependent and thereby caused in its *esse* without which cause it would be nothing. (*Ibid*)

Once more, however, this response doesn't work. First, merely from the fact that no essential component of something accounts for a thing's existence, it doesn't follow that the thing is dependent. Even considering something in which essence and existence are identical, its essence cannot *account* for its existence, for then its existence would be accounting for itself—it would be pulling itself up by its own metaphysical bootstraps. But, clearly, it doesn't follow that something in which essence and existence are identical is a dependent thing. Second, even if every essence-existence composite were dependent (including at non-first moments of their existence), this is ambiguous between *concurrent*, *sustaining causal* dependence and *explanatory* dependence. The former disambiguation is question-begging in this dialectical context, since the very question at issue is whether essence-existence composites require a concurrent, sustaining cause. But the latter disambiguation is compatible with EIT, for there are whole hosts of inertialist-friendly metaphysical accounts on which things' continuance is *explained*.

We conclude, then, that the *De Ente* argument of Aquinas, Nemes, and *Kerr* fails to refute EIT. Let's turn, finally, to a collection of worries for EIT based on four-dimensionalism.

7.3.9 Pruss and Four-dimensionalism*

Alexander Pruss (in personal correspondence and Pruss 2022) raises at least three worries for EIT under four-dimensionalism. We'll break such worries up one-by-one and respond to each in turn.

Worry One. Under four-dimensionalism, one might find EIT implausible. Suppose an inertially persistent object *O* occupies position *z* in spacetime. On EIT, *O* enjoys a blockable tendency to occupy some position or other one second later

than *z*. But why *later*? Why not instead a position one meter to the right of *z* (which would make *O* wider) or one meter in front of *z* (which would make *O* fatter)? What's so special about the forward temporal direction that *O* should enjoy inertia in *that* direction rather than any other direction? Why, in other words, does the tendency coincide with future light cones?

Reply. One response is to simply reject four-dimensionalism (as, e.g., Feser (2019) does). But let's consider how the four-dimensionalist inertialist might respond.

First, the inertialist can grant that, given the close analogy between spatial and temporal dimensions under four-dimensionalism, it is *a priori* strange or odd that things tend to persist in the forward temporal direction—i.e., that they would have temporal parts in the forward temporal direction unless prevented from doing so—rather than tending to expand in their spatial dimensions. But many things are *a priori* strange or odd—e.g., that there should be consciousness or even anything at all. In fact, if inertial persistence is explained by the laws of nature or by the intrinsic features of temporal concreta—as several metaphysical accounts of EIT entail—then inertial persistence might be yet another law of nature or intrinsic feature of at least some temporal concreta that we find surprising. After all, no one expected relativity or quantum mechanics or even mechanical inertia *a priori*.

More generally, our well of knowledge isn't limited to the *a priori*; we also know lots of things *a posteriori*. And (the inertialist might continue) we have good *a posteriori* reason to think at least some objects inertially persist in the forward temporal direction and no comparably good reason to think (as well as good reasons to think it's *false*) that there's anything like “spatial inertia” of the kind Worry One describes. We've already canvassed many such reasons (Sect. 7.2), but in general, we witness things simply remaining in existence (i.e., having later temporal parts) unless and until they're positively obstructed or destroyed, and we don't witness (at least *at large*) sustaining efficient causes. Further, we have plausible metaphysical accounts of EIT that aim to pinpoint that in virtue of which things inertially persist—i.e., that aim to explain in an inertialist-friendly manner why things persist. Never mind whether the opponent of EIT agrees with these points; the point is simply that they justify discriminating between (what we might term) *temporal* and *spatial* inertia in a manner that might seem *a priori* puzzling on four-dimensionalism.⁶⁶

Nevertheless, there's still the question concerning the relevant difference between temporal and spatial inertia—i.e., between inertia in the forward time-like direction and inertia in space-like directions. According to four-dimensionalism, spacetime worms exist tenselessly with a “fixed” extension in time-like and space-like directions. To say that an object *O* enjoys temporal inertia is then to make a statement

⁶⁶ *Temporal* inertia is the same as *existential* inertia as we've articulated the latter. We introduce the terms “temporal inertia” and “spatial inertia” here to highlight and clarify the contrast between *spatial* and *temporal* dimensions. After this subsection, we'll return to consistent usage of “existential inertia.”

about the object's boundaries along time-like directions. For example, supposing that spacetime is globally hyperbolic, one might say that there is a first and a last Cauchy surface, which we can denote *F* and *L* respectively, on which *O* exists. We then have:

1. If *O* enjoys *temporal* inertia, then there is (for example) a cause acting on *O* that ensures that *O* ceases to exist on *L*, but—since *O* enjoys temporal inertia—there is no similar requirement for an external sustaining cause to act on (or produce) any of the Cauchy surfaces through which *O* persists. Additionally, had no destructive cause been acting on *O* on *L*, *O* would have existed on Cauchy surfaces later than *L*—and, more generally, *O* exists on later Cauchy surfaces provided that no such cause prevents *O* from doing so.
2. In the contrary case—where *O* does *not* enjoy temporal inertia—some external entity might be needed to concurrently cause *O* to exist on each of the Cauchy surfaces intersecting *O*'s spacetime worm, or at least to explain why *O* exists on each of the Cauchy surfaces that intersect *O*'s spacetime worm. Additionally, *O* does *not* exist on later Cauchy surfaces unless some entity external to *O* concurrently acts to bring about *O*'s existence on such surfaces.
3. If *O* enjoys *spatial* inertia, then, while *O*'s boundaries in space-like directions must be causally explained, no other portion of *O*'s extension along space-like directions requires a causal explanation in terms of something external to *O*; for example, if *O* enjoys spatial inertia and has a boundary on the space-like surface *T*, we might need to invoke some cause to explain the boundary on *T*. Additionally, if *O* has a boundary on the space-like surface *T*, then had no destructive cause been acting to bring about its boundary on *T*, *O* would not have a boundary on *T* but would instead be “larger” in the relevant direction. More generally, *O* is as spatially large as possible provided that no such cause acts to bring about its boundaries.
4. In the contrary case—where *O* does *not* enjoy spatial inertia—every part of *O*'s extension along space-like directions, and not merely *O*'s spatial boundaries, would require an external concurrent cause (just as, if *O* does not enjoy temporal inertia, *O*'s existence on every Cauchy surface intersecting *O*'s worldline would require an external concurrent cause). Additionally, *O* does *not* exist in contiguous space-like regions unless some entity external to *O* concurrently acts to bring about *O*'s existence in such regions.

In the world that we inhabit, objects do not (apparently) enjoy spatial inertia; for example, each part along a brick wall's spatial extension, and not merely the wall's boundaries, needs to be explained by the causal activity of a brick-layer. Similarly,

the supposition that objects are as spatially large as possible unless they're positively prevented from being so is implausible.⁶⁷

To get a better grip on the problem here, note that there are at least two distinct families of four-dimensionalist theories. According to the first family of theories—B-theories of time—at least some spacetime points stand in temporal relations to one another, and any spacetime point P1 that stands in a temporal relation to P2 either stands in a relation of before or after with respect to P2.⁶⁸ According to the second family of theories—C-theories of time—although some spacetime points stand in temporal relations to one another, the only temporal relation that a spacetime point can stand in is a *between-ness* relation. For example, P1 might occur between P0 and P2. Here's the important point: insofar as some B-theory of time is true, time differs from space in virtue of the fact that there is an irreducible and objective direction of time, as afforded by before and after relations. Thus, supposing that B-theory is true, the inertialist can appeal to the irreducible and objective direction of time afforded by before and after relations in order to explain why objects enjoy temporal inertia and not spatial inertia. Some philosophers have defended the view that *causation* provides time with both unity and directionality. But in that case, there seems to be little difficulty in privileging temporal over spatial inertia—not implausibly, there are temporally-forward-directed transtemporal causal relations between the successive temporal parts of objects (à la transtemporal accounts), relations that are overridden only by sufficiently counteracting obstructive/preventative/destructive causal factors.⁶⁹ But there's nothing analogous to this that privileges an object's extension in space-like directions. More generally, the inertialist can explain the privileging of the forward time-like direction in terms of causation's privileging arrow.⁷⁰

⁶⁷ Pruss' worry, then, is essentially the following. Given the close similarity between space and time under four-dimensionalism, it would be strange or odd to deny that <if O enjoys temporal inertia, then O enjoys spatial inertia>—i.e., it would be strange or odd to deny that <if O exists on later Cauchy surfaces unless positively prevented from doing so, O is spatially larger unless positively prevented from being so>. But, Pruss continues, it is *false* that O is spatially larger unless prevented from being so. So, either O doesn't enjoy temporal inertia, or else EIT problematically posits some strange asymmetry between the spatial and temporal dimensions.

⁶⁸ We have engineered our definition of B-theory to be consistent with relativity. B-theory is often defined in such a way that any two spacetime points stand in a relationship of before, after, or simultaneous-with. But orthodox relativity forbids absolute simultaneity between distinct spacetime points. Moreover, orthodox relativity entails that the ordering among spacetime points is a partial ordering, since (for example) some spacetime points will fail to have a temporal relation between them.

⁶⁹ Other metaphysical accounts can similarly be cited to ground the difference between temporal and spatial inertia, offering relevant differences between the two.

⁷⁰ What explains *that*, you ask? Well, that's no longer in the court of the inertialist; it's in the court of everyone who accepts that causation provides time with its unity and directionality. The B-theoretic inertialist can simply draw upon wider debates about causation to answer this further explanatory question. (And, again, it's no condition on adequate explanation that one have a *further* explanation at hand for everything in one's explanans.)

There are philosophers (Farr 2020; Farr and Reutlinger 2013; Price 1997), including one of us (Daniel), who harbor doubts that time has an irreducible past-to-future direction. That is, there are philosophers who defend the view that our spacetime is fundamentally C-theoretic, so that, at least fundamentally, there are no before or after relations that would favor inertia along time-like directions and not space-like directions. Nonetheless, an explanation for temporal inertia *can* still be delivered by a close examination of contemporary physical theory. According to a long-standing argument in defense of C-theory, the laws of physics are temporally symmetric, suggesting that the temporal direction we ordinarily regard as the past bears the same nomological relationship to what we ordinarily regard as the future as the latter bears to the former (Farr and Reutlinger 2013). That is, instead of thinking of nomological dependence as an asymmetric relationship between past and future states of affairs, we should think of nomological (inter-)dependence as a symmetric relationship that connects states of affairs in *both* temporal directions. On the assumption that spacetime is globally hyperbolic, the initial value problem in General Relativity is well posed, so that, given the features of some Cauchy surface, the Einstein Field Equations can be used to derive the features of any other Cauchy surface. However, a similar statement cannot generally be made for space-like directions. That is, the Einstein Field Equations cannot generally be used to project through space-like directions in the way that the Einstein Field Equations can be used to project through time-like directions. This feature of the Einstein Field Equations generalizes; the fundamental laws of physics connect states of affairs on distinct Cauchy surfaces, so that, even on C-theory, nomological dependence acts across time-like directions and not across space-like directions. Accounts of EIT that appeal to laws of nature can then be used to explain why inertial persistence happens along time-like and not space-like directions. And, again, recall that, modulo differentiability conditions, there are no constraints imposed by the values of physical parameters between space-like related points, even though there are constraints imposed by the values of physical parameters between time-like related points. There is counterfactual (inter-)dependence in time-like, but not space-like, directions.

There is another asymmetry between time-like and space-like directions to which both B-theorists and C-theorists can appeal. Relativity forbids the transmission of a signal at faster than light speed, and this fact features in an explanation of the distinction between (e.g.) your light cones and spacetime points falling outside of your lightcones. That is, while you can receive a signal from your past light cone or transmit a signal into your future light cone, you cannot receive a signal from or transmit a signal into space-like directions. As we've seen, given that (i) relativity is empirically adequate, (ii) efficient causes are (typically) distinct objects from and occupy distinct spatiotemporal locations from their patients, and (iii) the proximate efficient cause, the effect produced in the patient, and the patient are observable, then the efficient cause must be time-like related to its patient. While C-theory cannot countenance time-asymmetric causal relationships, C-theory *can* countenance time-symmetric relations of necessary (inter-)dependence; as with efficient

causation, two observable distinct and non-overlapping objects that stand in time-symmetric relations of necessary (inter-)dependence must be time-like related.

Finally, the inertialist might run a *tu quoque* reply to Worry One. In particular, they can say that when God continually sustains O, why does God extend O in the temporally forward direction? Why not instead a position one meter to the right (making objects wider) or one meter in front (making objects fatter)? What's so special about the forward time-like direction such that God's imparting existence should make objects increasingly extend in *that* direction rather than any other direction? We *could* just say, "well, that's just what God willed/desired/intended," but then the inertialist can (with no less plausibility) simply say "well, that's just how existential inertia works." Both seem to end in effectively saying "well, that's just the way things are," and yet the inertialist's answer is theoretically simpler.

Worry Two. Quite similar to the first worry is the following. Under EIT and relativistic four-dimensionalism, when O is at *z*, O tends to occupy some point in the future light cone centered on *z*. *But why?* Moreover, why should a metaphysical principle say that O has a tendency to exist at *some point or other* of its future light cone without specifying *which one* (or even specifying a probability distribution over them)?

Reply. First, the answer to the *why* question will cite a metaphysical account of EIT, of which we have surveyed many in Chap. 6.

Second, what exactly is "odd" about a metaphysical principle that specifies that O tends to exist in *some point or other* of O's future light cone? Our intuition is that EIT is not odd in that respect. EIT doesn't specify the *exact* point in O's future light cone where O will persist because the *exact* point at which O persists depends on O's trajectory through spacetime. And, importantly, distinct metaphysical accounts will explain O's trajectory in different ways. For example, some accounts will say that O's trajectory is explained by the laws of nature. After all, one might think that the job of physics just is to explain why objects take the trajectories that they take. But then EIT was never supposed to provide an account for the laws of nature. Alternatively, the laws of nature might provide a probability distribution over the trajectories that O might possibly take. Other accounts will say that a panoply of contingent, variable causal influences on O determines the particular trajectory O takes. There's nothing odd here. EIT specifies only that O has temporal parts at later times, but the *exact spatiotemporal location* depends on a panoply of highly contingent, highly variable situational features of O. So *of course* there won't be a general metaphysical principle telling us the exact spatiotemporal location of objects as they persist through time.

Third, relativity tells us that nothing can go faster than the speed of light. This is no arbitrary restriction on velocities; instead, the principle reflects the fundamental structure of spacetime itself. If O ended up *outside* O's future light cone, O would have exceeded the speed of light and hence violated the fundamental structure of spacetime itself. The fact that O does not end up outside of O's future light cone is reflected in the deep mathematical structure of globally hyperbolic spacetimes,

where projections can be made along time-like, but not space-like, directions. Thus, there is no mystery concerning why O ends up at some point or other in O's future light cone. Why does O end up at some *exact* location in O's future light cone? Again, the fact that O ends up at some specific location in O's future light cone might be determined by the laws of nature or by the various causes acting on O. There's simply no mystery here. (Apart, of course, from the mystery concerning why spacetime has the fundamental structure that spacetime has! But that's a question extending far beyond the EIT debate, and it's no mark against EIT *as such* that EIT has no explanation to offer for the fundamental structure of spacetime.)

Worry Three. Suppose that today at noon, O time travels to the distant past and lives out the rest of its short life. Has this blocked or overridden O's inertial tendency to exist later than today at noon? After all, in external time—i.e., time as measured by changes occurring in the world beyond the time traveler and its immediate environment—O has failed to exist past noon. More plausible (according to Pruss 2022) is that O's inertial tendency has *not* been blocked in this case, since existential inertia is plausibly about “having a future”, and today at noon, O *does* have a future (albeit in the distant past). O's future is simply O's *personal* future. In other words, existential inertia concerns *personal* or *internal time*—i.e., time as measured by changes within the time traveler and its immediate environment.⁷¹ “But if so,” writes Pruss, “then existential inertia has not removed all that needs to be explained about persistence. For a normal [inertially persistent object] not only tends to continue to exist in its internal-time future, but also tends to continue to exist in its external-time future, since normally there is no time travel. And this external-time persistence is not explained by existential inertia” if the latter only tracks *internal time* (2022).⁷²

Reply. The inertialist could, of course, simply deny the possibility of time travel, but set that aside for present purposes. Another response is to grant that EIT tracks internal time, but to hold that the explanation of persistence in internal time *transmits* to persistence in external time when internal and external time coincide. The explanation for O's persistence in external time would then be something like: (i) the inertialist explanation of O's persistence in internal time (which would cite a metaphysical account of EIT), together with (ii) the fact that O's internal time and external time coincide. And (ii)'s satisfaction can plausibly be explained by the facts that (a) there's nothing in the case at hand that explains why O's internal time diverges from external time (e.g., there's no time travel, etc.), and (b) O's internal

⁷¹ On the distinction between personal (or internal) and external time, see Lewis (1976). As Lewis put it, “I reply by distinguishing time itself, *external time* as I shall also call it, from the *personal time* of a particular time traveler: roughly, that which is measured by his wristwatch” (*ibid.*, p. 146).

⁷² Strictly speaking, existential inertia doesn't explain anything. “Existential inertia” is ambiguous between the *thesis* of existential inertia (i.e., EIT) and the *phenomenon* of inertial persistence (i.e., things persisting absent (i) external sustenance and (ii) destruction). But neither of these *explain* persistence; that's the job of *metaphysical accounts* of EIT, i.e., inertialist-friendly explanations of persistence.

time diverges from external time only if there's something that explains such divergence. (Other explanations for (ii) exist, but we digress.)

A still further response challenges the legitimacy of the distinction between internal and external time. Serious philosophical challenges have been leveled in (e.g.) Feser (2019, pp. 282–288) and the references therein, but there are also challenges deriving from relativity theory. In a relativistic spacetime, there's only *proper time* as marked out along any given trajectory. If we understand external time as an absolute time parameter, then, on the orthodox interpretation of relativity, there is simply no such thing as external time (Daniels 2014, p. 338); moreover, in a relativistic setting, internal time might be replaced or subsumed by proper time. There *are* relativistic spacetimes that allow for time travel in principle.⁷³ As one example of relativistic time travel, we can consider someone who traverses a closed time-like curve (CTC). We may say that a spacetime includes backwards time travel just in case, for at least one point p on at least one trajectory γ , there is a point q in p 's future light cone numerically identical to a point in p 's past light cone. And a spacetime includes a CTC just in case one spacetime point the time traveler traverses in their future is numerically identical to a point they traversed in their past, so that, on a spacetime diagram, γ forms a closed loop. In relativistic backwards time travel, the time traveler always travels into their future light cone, even though they end up in their own past. And since the time traveler always travels into their own future despite ending up in their own past, the time traveler—and (we can suppose) all other objects in their universe—inertially persists.

Pruss also writes that it's “not clear why the forward lightcone would be so *metaphysically* special that a fundamental metaphysical principle would coordinate with lightcones so neatly” (2022). But why think that? Consider a naive realist view about relativity. On such a view, the light cone structure is fundamental, explains the distinction between space and time, and plays a fundamental role in our most successful theories of fundamental physics. The light cone structure is the fundamental postulate of relativistic physics; most everything else—the constancy of the speed of light, that the speed of light cannot be exceeded, the Lorentz transformations, all the funny business around black holes, etc.—depends on the light cone structure. Again, as we've said previously, the light cone structure reflects the deep mathematical content of General Relativity; for those spacetimes in which the initial value problem is well-posed, the initial value problem is well-posed along time-like directions—as picked out by the light cone structure—and not along space-like directions. If we suppose, not implausibly and along Kripkean lines, that there are *a posteriori* necessary truths, perhaps what physicists have discovered is that spacetime is *the sort of thing that spacetime is* precisely because spacetime has the structure that spacetime has—including the light cone structure—just as water is *the sort of thing that water is* because water is composed of H_2O . In that case, as a matter of

⁷³ Famously, Kurt Gödel (1949a, b) found a solution to the Einstein Field Equations where a CTC passes through every spacetime point.

metaphysical necessity, there is no spacetime without light cone structure. If so, then as a matter of metaphysical necessity, objects cannot persist in space-like directions and can only persist along a time-like direction. In that case, we have a perfectly adequate and warranted explanation of the coordination of metaphysical principles about persistence with light cone structure.

Anyway, that concludes the final criticism of EIT we'll consider. To be sure, there may be other criticisms yet to be developed, or other criticisms within the literature of related issues that can be adapted to the context of EIT.⁷⁴ Concerning the criticisms that *have* been developed, however—or, at least, the ones of which we're aware—our verdict is that they uniformly fail. We suppose you could say they can't be... *sustained*.

7.4 Conclusion

We began by considering the theoretical virtues of EIT in relation to CTST. We argued that EIT provides a simpler, better explanation of a whole host of phenomena concerning persistence, our explanatory practices, and so on. After articulating several other arguments for EIT, we then argued that the principal criticisms of EIT in the extant literature can all be met.

The upshot is this. We uncovered many serious problems for the Aristotelian proof and the First Way irrespective of EIT's truth or rational defensibility. But—as we hope to have shown in this chapter and the previous two—EIT itself provides a formidable challenge to persistence arguments for classical theism (including the Aristotelian proof). And as we will see in subsequent chapters, EIT provides a defeater for the Neo-Platonic, Thomistic, and Rationalist proofs as well.

⁷⁴ A few notes about this. First, we'll consider in later chapters whether Feser's other proofs do any damage to EIT. (They don't.) Second, there are criticisms of something like existential inertia in Kvanvig and McCann (1988). We haven't considered them in this chapter for several reasons, one of which is that it's not clear that they're criticisms of EIT *as such*. The criticisms therein also overlook the various metaphysical accounts of EIT. (We also direct readers to Beaudoin's (2007) nice treatment of Kvanvig and McCann's points.) We have also not addressed Feser's (2011) claim that (at least some of) the five ways themselves represent arguments against EIT. Here are two reasons for this. First: we have already addressed the first way in Chap. 2 as well as Feser's Aristotelian proof in Chaps. 3 and 4, which is his own first-way-esque argument. We will also address in later chapters what Feser says on behalf of the demand for sustaining causes in his essence-existence or *De Ente*-esque argument (i.e., his Thomistic proof) as well as what Feser says on behalf of the demand for sustaining causes based on contingency (i.e., his Rationalist proof). What we say therein applies *mutatis mutandis* to Feser's claim that the first three ways constitute arguments against EIT, since Feser gives the second and third ways essence-existence and contingency interpretations (respectively). And we don't find the fourth or fifth ways plausible. Second: we find Feser's claim deeply implausible, given that Feser's (2011) renditions of the five ways have premises that simply *assert*, rather than *justify*, the falsity of EIT.

But before tackling such proofs, there is one thing we need to cover: *stage two* of the Aristotelian proof. Thus far, we've focused exclusively on stage one. But if stage two is defective, then the success of stage one is insufficient to establish the God of classical theism. We therefore turn to stage two in the next chapter.

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Chapter 8

Mind the Gap



8.1 Introduction

Recall from Chap. 2 that a particularly serious Gap Problem afflicts the First Way insofar as the First Way is unable to establish the God of classical theism as opposed to the mere existence of a necessary being. But let's suppose that the existence of an unchangeable, purely actual being *has* been established. A question then naturally arises: is such a being *God*, or is it instead an unintelligent, impersonal, immutable principle from which everything else derives its being and motion?

Arguments for God's existence are rightly tasked with bridging this inferential gap. If we want to conclude to *God's* existence, we need reasons for thinking that the being in question has various divine attributes. This is where traditional cosmological arguments are broken into two stages. Stage one, as we've seen, seeks to establish a foundation or ultimate explanation for some general feature of reality, whereas stage two seeks to identify this foundation with God.

In this chapter, we argue that stage two of the Aristotelian proof fails to bridge this inferential gap. Perhaps surprisingly, there is (as yet) nothing in the literature serving as a critical appraisal of this stage. Filling this lacuna is important, since the second stages of the Neo-Platonic, Augustinian, Thomistic, and Rationalist proofs *presuppose* the success of the inference from purely actual being to God. The Neo-Platonic proof concludes to an absolutely simple or non-composite being and then reasons that such a being must be purely actual. From there, the proof relies on the inferences in the Aristotelian proof's second stage. The same pattern holds for the three other proofs. Thus, if the inferences in stage two of the Aristotelian proof fail, stage two of the other proofs fail. And if stage two of the other proofs fail, then the arguments fail as arguments for God's existence (let alone the *classical* theistic God's existence).

In addition to the negative project just described, we conclude the chapter by characterizing *atemporal wavefunction monism* as an alternative model of reality's

foundation. We also argue that this strengthens the Gap Problem both for classical theistic proofs and persistence arguments more generally.

Before examining the Aristotelian proof's second stage, however, a word is in order about our chapter's scope. As we explained in Chaps. 2 and 3, the Aristotelian proof traces its intellectual heritage at least back to Aristotle. Despite its historical connections, however, the Aristotelian proof is still *Feser's* argument—Feser supplies both a renewed defense and unique formulation thereof. Thus, because our chapter's focus is specifically on the *Aristotelian proof's* second stage, it stands to reason that our principal target will be what *Feser* says on its behalf. Nevertheless, what we say applies *mutatis mutandis* to other defenses of many stage two inferences of classical theistic proofs (e.g., Hsiao and Sanders (2022), Gel (Forthcoming), Siniscalchi (2018), and Aquinas's (2022) *Summa Theologiae* I, q11 a3). And as we said in the previous paragraph, our investigation likewise bears on the Gap Problem for cosmological arguments more generally.

With all that out of the way, we can turn to the good stuff.

8.2 Gap Problem

8.2.1 Timelessness

Let's quickly summarize some definitions from Chap. 1: *x intrinsically changes* just in case *x* loses or gains an intrinsic feature *F*, where *F* is an intrinsic feature of *x* provided that *F* characterizes *x* as it is *in itself*. By contrast, *x extrinsically changes* just in case *x* loses or gains a relation to something *ad extra*.

Let's turn, then, to the Aristotelian proof's inference from being *purely actual* to being *timeless*. Feser argues that since “existing within time entails changeability, an immutable cause must also be *eternal* in the sense of existing outside of time altogether. It neither comes to be nor passes away but simply *is*, timelessly, without beginning or end” (2017, p. 29).

But at this point, a dilemma afflicts Feser's inference. Either timelessness and extrinsic change are compatible or incompatible. If timelessness and extrinsic change are incompatible, then a key step in our argument for EIT from divine temporality (Sect. 7.2.2) is vindicated, and the classical theist will either have to adopt a tenseless theory of time or else adopt an implausible fragmented view of reality under which what exists for creatures is different from what exists for God. But if timelessness and extrinsic change *are* compatible, then Feser's inference to timelessness fails. For it's not at all clear why the mere fact of being within time entails being *intrinsically* changeable. Recall that even in cases of extrinsic change, *x* gains or loses some feature, albeit a relational feature borne to something wholly separate or disjoint from *x*. But we can easily imagine an elementary particle that undergoes no changes in its intrinsic characteristics (charge, mass, etc.) even while moving relative to other objects and persisting through time. Thus, for Feser's inference to

timelessness to go through, Feser must do more than merely point out that x 's temporality entails that x gains or loses features (e.g., *existing at t_1* , *existing at t_2* , and so on). This is because gaining or losing features *underdetermines* whether an intrinsic or extrinsic change has occurred. It must be demonstrated *in addition* that the features in question are *intrinsic* rather than *extrinsic*. But Feser has given no reason as to why the features in question are intrinsic rather than extrinsic. In particular, Feser has provided no reason as to why the gain or loss of temporal features entails *intrinsic* changes to the persistent object.

Indeed, the view that the gain or loss of features entails intrinsic changes to the persistent object seems implausible. Surely an entity might persist *not* because the entity intrinsically changes but instead because the entity changes in *relation* to *other* things that intrinsically change. And even if time is the measure of change, this only implies that the existence of time entails that *there is some change or other*; the view that time is the measure of change does *not* imply that every entity that exists in time must *intrinsically* change. Temporal reality could be such that (i) objects $O_1, O_2, \dots O_n$ exist in time, (ii) one of the aforementioned O_i is intrinsically unchangeable (but changes in relation to the other objects), and (iii) time nevertheless exists (and passes) in virtue of the changes in objects *other than* O_i (and to which, we suppose, O_i relationally stands).

Feser's inference to timelessness, then, faces a serious dilemma.

8.2.2 Perfection

Let's now consider the Aristotelian proof's inference to perfection. Feser argues:

An injured animal or damaged plant is imperfect insofar as it is no longer capable of realizing fully the ends its nature has set for it ... A defect of this sort is ... a *privation*, the absence of some feature a thing would naturally require so as to be complete. It involves the failure to realize some *potential* inherent in a thing. Something is perfect, then, to the extent that it has actualized such potentials and is without privations. But then a purely actual cause of things ... possesses maximal *perfection*. (2017, pp. 29–30)

Here's a reconstruction:

1. Whatever is imperfect has privations or defects.
2. Whatever has privations or defects has potencies.
3. Whatever is purely actual lacks potencies.
4. So, whatever is purely actual is maximally perfect.

Feser doesn't define maximal perfection. We can reasonably infer, though, that "maximal perfection" simply means "has no imperfections," since the only conclusion that follows from (1) to (3) is that whatever is purely actual has no imperfections in the sense of privations or defects.

With this understanding of maximal perfection in mind, we want to highlight the limitations of the conclusion. First, the conclusion does not entail that the purely actual being is *axiologically supreme*, i.e., the greatest or most valuable being

possible. All that follows is that the being fully realizes its nature—there is no feature the being *ought* to realize (given the being's nature) that the being *fails* to realize. Second, the conclusion only allows us to infer that the purely actual being possesses *only* perfections. We cannot thereby infer that the purely actual being possesses *all* perfections. And at least in contemporary philosophy of religion, a *perfect being* is typically understood as a being that possesses all perfections essentially and lacks all imperfections essentially (Bernstein 2014).

Third, the understanding of maximal perfection at play is, by our lights, deeply implausible. For Feser, a being is (maximally) perfect if the being does not lack any features that the being (in some sense) *ought* to have given the being's nature or essence. But consider a hypothetical being whose sole causal power is to flip a switch—the being is incapable of doing anything else. Call such a being McSwitch. We can suppose further that McSwitch fully realizes (and cannot fail in its exercise of) the causal power to flip a switch—McSwitch fully manifests the ends “built” into its nature or essence. Thus, McSwitch has no privations or defects that McSwitch ought to realize but fails to realize. Because McSwitch is devoid of any privations or defects that McSwitch ought to manifest given its nature or essence, Feser's understanding of perfection yields the implausible consequence that McSwitch is maximally perfect. But surely McSwitch is *not* a maximally perfect being.

The underlying problem in Feser's understanding of maximal perfection is that, intuitively, *x's being maximally perfect* is *not* just a matter of *x's fully realizing x's essential ends*—the latter seems hopelessly insufficient for the former. McSwitch (we have supposed) fully realizes or actualizes the ends built into its nature and hence lacks privations or defects. Similarly, an exact geometric circle (not the approximations we draw thereof) is a shape that doesn't have any privations or defects—such a circle fully realizes the ends provided by its nature. We can also imagine a being that fully realizes its sole essential end of inducing extreme suffering in sentient creatures. Under Feser's understanding, McSwitch, the exact circle, and the suffering-inducer are *maximally perfect*. But this consequence is absurd.

Feser's notion of maximal perfection, moreover, seems to carry little to no *axiological* weight. Plausibly, a drawn circle isn't *more valuable* (full stop, independently of our desires or uses of the drawing) to the extent that it more accurately approximates an exact geometric circle. And even if we bite these bullets and affirm that McSwitch, the exact circle, and the suffering-inducer *are*, after all, maximally perfect (or *would be*), then we've gutted Feser's inference of its significance. For then maximal perfection is no longer a uniquely or distinctively *divine* characteristic. At least in principle, whole swathes of non-God objects may enjoy maximal perfection, too.¹

¹ Note that the onus of justification in the present dialectical context is not on *us* to positively show that a purely actual thing would be “maximally perfect” in one of these entirely banal and utterly non-divine ways (along the lines of McSwitch, or the circle, or the suffering-inducer, or any of the infinite epistemic possibilities). Rather, it is on *Feser* to show that the purely actual thing *would not be* “maximally perfect” in one of these entirely banal and utterly non-divine ways.

Fourth, it's not clear why being defective would entail having potencies. The existence of, say, an irredeemably defective or evil being appears to be possible, at least in principle. For example, some Christians hold that Satan is irredeemably evil and has no potential for (say) salvation or growth in virtue. In this case, Satan has defects, but the defects are such that they have no potential to be rectified.² Hence, potency doesn't necessarily follow upon defectiveness. Now, Christians might say that Satan *once* had the potential for salvation and virtue, but upon turning away from God, Satan lost that potential. Fair enough; but now just imagine an alternative view on which there is a being just like Satan but who never had such potential. What is incoherent or impossible about such a being? Feser would need to rule this out as impossible, but Feser does no such thing.³

Feser might try to avoid this problem by arguing that a defect of S entails either (i) S lacking some x that S *ought to have*, or (ii) S having some x that S *ought to lack*. But (so the thought goes) ought implies can. Hence, either S lacks but *can* have x, or S has but *can* lack x. And in that case, S has some inherent potential. Hence, potency *does* follow upon defectiveness.

One worry is that this response overlooks the fact that x might be *extrinsic* to S, and hence having or lacking x need not entail any potency that *inheres in* S. And so—pace the response above—<S has some (inherent) potential> doesn't follow from <S can have or lack x>.⁴

Another worry is that the response assumes the principle *ought implies can*. But many philosophers think this principle is false. For instance, many philosophers who believe in compatibilist-friendly free will also believe that human actions and decisions are causally determined—and, as a result, believe humans have no ability

² Obviously, Thomists would think that Satan, as a created being, is a composite of act and potency. But this is irrelevant to our point. Our point is simply that—plausibly—something doesn't automatically have potency merely in virtue of being defective.

³ *Objection.* Some Christians adopt the view about Satan described in the main text, but unless Thomists ought to be committed to that view about Satan, Feser (and other Thomists) can simply reject the view as incompatible with their other metaphysical commitments. *Reply.* This objection misses the point. The point is that the onus of justification here is on Feser to rule this view out, and yet nothing in his inference to perfection rules it out. Of course, if Feser wants to appeal to *other* arguments to rule the view out, so be it; but as his case stands, he fails to rule it out and so fails to justify his inference to maximal perfection.

⁴ Two notes. First: our rejoinder here depends on how we cash out x's being extrinsic to S. But however we cash it out, it seems like Feser, at least, won't be able to object to our rejoinder. For Feser must admit that God *can* have knowledge that there are no created things (since God could have freely refrained from creating) but does not *in fact* know this (since there are creatures). And yet this doesn't entail—by Feser's lights, that is—that God has potency. Hence, from the mere fact that S doesn't have x but can have x, it doesn't follow (for Feser) that S has potency. Second: one might object that the notion of *perfection* only applies to intrinsic properties. But this is not plausible. Independence or aseity is extrinsic, and yet surely it's a perfection; knowledge is partly extrinsic, and yet surely it's a perfection; *being the greatest possible being* is extrinsic, and yet surely it's a perfection; and so on. One might just stipulate that being a (maximally) perfect being only requires being *intrinsically* perfect. But then the definition of "(maximally) perfect being" faces seemingly obvious counterexamples, since then a maximally perfect being could presumably have whole swathes of imperfect, defective, bad-making, and/or terrible extrinsic properties.

to do otherwise (i.e., no leeway freedom). And yet many such philosophers still think that (say) Hitler ought not to have killed millions.

A third and final worry for this response is that it's not at all clear that S's being defective (or, perhaps more precisely, *evil*) entails that S has or lacks some x which S *ought* to lack or have. Suppose we grant that ought implies can, and suppose, further, that there is a malicious deity who necessarily and essentially desires and seeks to actualize the suffering and languishing of other sentient creatures. This deity is clearly evil, and yet its various bad-making features are (we are supposing) necessarily and essentially possessed. Given that the foregoing seems entirely coherent, it's not at all clear that S's being evil entails that S *ought* to be different. At the very least, the onus of justification in this dialectical context is on Feser to establish that S's being defective (or evil) entails that something about S *ought* to be (and hence *can* be) different.

But perhaps you still protest. Perhaps you think a "defect" *just is* the failure to realize a natural end that is potentially realized. No matter—just imagine a being whose natural ends are ones we judge to be horrendous or malicious. Perhaps the being has natural ends exhausted by the tendencies (perhaps even *desires*) to actualize starvation, disease, disaster, torture, rape, and the like. Assuming that such a being fully realizes these ends (by successfully actualizing such atrocities), the being is not defective in any manner—indeed, by Feser's definition, the being is *maximally perfect*. So *even if* being defective entails having potencies, being horrendous or malicious doesn't. And so inferring that the purely actual thing lacks defects and is maximally perfect thoroughly *underdetermines* the character, nature, and ends of the being in question. We're left entirely in the dark about *what its natural ends are*, and consequently we're left entirely in the dark about what its "maximal perfection" really consists in. Feser's inference to maximal perfection is therefore entirely gutted of any divine import.

We turn next to Feser's inference to uniqueness.

8.2.3 Uniqueness

The importance of the inference to uniqueness is paramount, as the inference undergirds a number of other inferences to divine attributes.

As presented in his defense of the syllogistic proof, Feser's argument is as follows. In order for there to be (say) two purely actual beings, there must be some feature that one has that the other lacks, i.e., some differentiating feature between them. "But," argues Feser, "there could be such a differentiating feature only if a purely actual actualizer had some unactualized potential, which, being purely actual, it does not have" (2017, p. 36). But this argument fails. As we saw in Chap. 2, a differentiating feature could be had in terms of something *other than* an

unactualized potential (e.g., some difference in *actual* features). We also saw there that this line of reasoning is incompatible with Trinitarianism.⁵

While the syllogistic version fails, Feser offers a distinct but related justification elsewhere—one which resembles Aquinas’s second argument in *Summa Theologiae* (I, q11 a3).

[T]wo or more things of a kind are to be differentiated in terms of some perfection or privation that one has and the other lacks.... [But] what is purely actual is completely devoid of any privation and is maximal in perfection. Hence, there can be no way in principle to differentiate one purely actual cause from another ... (Feser 2017, p. 30).

There are several problems with this argument. First, we’ve been given no reason to think that the only two types of (differentiating) features are privations or perfections. In general, there’s a distinction between “not possessing a perfection” and “having a privation.” Having wings is a “perfection” for an eagle, but not for a worm. *Not* possessing a feature is only a defect, lack, or privation if *possessing* that feature is in some sense characteristic of or proper to one’s kind. So, if one purely actual being (A_1) has a perfection that the other (A_2) does not have, this doesn’t entail that A_2 *lacks* something (in the sense of a defect). And nor does the fact that A_1 has a perfection that A_2 does not have entail that A_2 *potentially* has that feature— A_2 could simply necessarily and essentially not have the feature.

One might object that act and potency divide reality exhaustively. So if we have two purely actual beings, A_1 and A_2 , and A_2 has a perfection x that A_1 lacks, then either x is an act or a potency. But, since we’ve assumed A_2 to be purely actual, x can’t be a potency. But neither can x be an act, for if x were an act, then since A_2 has x , it follows that purely actual beings can have x . And so A_1 lacks a perfection A_1 can have (thus entailing a defect or an imperfection), and so there is potency in A_1 . But *ex hypothesi*, A_1 is *purely* actual and so there is no potency in A_1 .

The problem with this objection is that from the facts that (i) A_1 has x and (ii) A_1 is purely actual, it does *not* follow that (iii) for any other purely actual being A_2 , A_2 can also have x . For one thing, there are clear counterexamples. Take, for instance, the property of being identical to A_1 . Conditions (i) and (ii) but not (iii) are satisfied here. The argument is like saying that “since Joe has the property *being identical to Joe*, it follows that human beings can have the property *being identical to Joe*, and hence Dan can have the property of being identical to Joe.” But this is obviously absurd.

To compound things further, the objection assumes the principle that if x and y are both F , then if x is G , y can be G . For suppose that this principle is false. Then from the facts that A_1 and A_2 are both purely actual and A_1 is or has x , it simply doesn’t follow that A_2 can be/have x . The problem, though, is that this principle is false. Joseph and his dog are both animals, but Joseph has lots of features his dog

⁵I (Joseph) also argue in Schmid (Forthcoming), *pace* Gel (Forthcoming), that distinction among beings does *not* require the possession of one or more features that differentiates them. This is yet another problem for Feser’s argument for uniqueness here. It’s also a problem for Feser’s second argument for uniqueness (to which we turn next in the main text), as well as any appeal to the Identity of Indiscernibles in the present context.

couldn't have (e.g., capacity for rational thought, seething hatred of endnotes, creator of the greatest YouTube channel ever, etc.).

Another problem with Feser's argument for uniqueness is that the argument merely presupposes that purely actual beings (would) form a *kind*. But no justification has been given as to why purely actual beings could not occupy *different* kinds with (say) *different* sets of perfections that each purely actual being fully realizes. Nor has any justification been given as to why multiple purely actual beings cannot transcend kind classifications altogether.⁶

One might object that two things are of the same kind if they have the same form. And for any form, either that form is identical to pure actuality or not. If the form is not identical to pure actuality, then the form has some potency. So a purely actual being's form is identical to pure actuality. But this means any purely actual being will have the same form as another purely actual being, and so purely actual beings are of the same kind. The argument here, we take it, goes something like the following:

1. If x and y have the same form, then x and y are of the same kind.
2. For anything that has a form, either that form is identical to *being purely actual* or else the form is not identical to *being purely actual*.
3. If a form isn't identical to *being purely actual*, then the form has some potency.
4. If a form has some potency, then for any x that has that form, x has potency.
5. So, any purely actual beings that have a form have *one* form that is identical to being purely actual. (2–4)
6. So, any purely actual beings that have a form have the same form. (5)
7. So, any purely actual beings that have a form are of the same kind. (1, 6)

We have several responses to this argument. First, (1) assumes that two things are of the same kind if they have the same form. This might be a part of traditional Aristotelianism, but if one wants to mount a successful second stage, one needs to offer positive reasons for this claim. Maybe one could say that (1) is definitionally true of forms; but then we would simply call into question why we should conjoin to (7) that a purely actual being has a form *understood in a way that definitionally involves being of a kind* in order to infer that any purely actual beings are of the same kind.

We also don't find (3) plausible. Take the form *being a purely actual wavefunction (or purely actual quantum field) with probability distribution D*, where D is a distribution of probabilities attached to the various powers enjoyed by the wavefunction (or quantum field)—e.g., a distribution assigning a 5% chance of the wavefunction or field exercising its power to bring about effect E, a 30% chance of

⁶Feser offers no reason for thinking *being purely actual* marks a *natural kind*. Indeed, for two purely actual things, there may be nothing we can predicate *univocally* of each—their resemblance may be thoroughly analogical, as God's resemblance to creatures is. (E.g., even though we predicate *actual* of both God and creatures, for the Thomist this is an *analogical*, rather than *univocal*, predication. Similarly, even though we predicate *purely actual* of each purely actual being, this might be mere analogical predication. The onus is on Feser to show that this *couldn't* be the case.)

exercising its power to bring about E^* , and so on across the range of possible effects. Let this form be F . F is distinct from *being purely actual*, since F has entailments that *being purely actual* doesn't have. But, importantly, F has no potency. After all, the possession of F *strictly entails* being purely actual. Hence, if x has F , x has no potency. Given (4), it simply follows that F itself has no potency. Thus, (3) is false.

We find (4) similarly implausible. It is not in general true that if x 's form has F , then x itself has F . For instance, a form has the property of being a form, but, clearly, *the substance that has that form* does not have the property of being a form. So, merely from the fact that the *form* (considered in itself) has potency, it doesn't follow that *that which has the form* has potency.

Finally, (7) does not entail that purely actual beings are of the same kind. (7) only entails that *if* purely actual beings each have a form, *then* they are of the same kind; one still needs to establish that purely actual beings each have a form.

Feser also argues for uniqueness as follows: "[F] or there to be more than one thing of a certain kind, there must be a distinction between the thing and the species of which it is a member," or "between the species and [its] genus ... And there can be no such distinction without there also being a distinction between a thing's potentialities and its actualities" (2017, p. 186).

But, first, we've been given no reason as to why purely actual beings would all fall within a *kind*. Perhaps they fall under different kinds with different sets of perfections, or perhaps they transcend kind classifications altogether. Second, no reason is given as to why a distinction between the thing and a species of which the thing is a member (or between the species and its genus) would entail potencies. (Indeed, we haven't even been given a reason to think that *species* and *genus*—in the metaphysical senses thereof—are real features of reality!) The genus and species could simply be wholly actual, with no potential to begin, cease, vary, or admit of different specific differences. Feser gives an example of a genus—animality—which stands in potency to rationality, as animality has the potential also to have (say) dog-ness as a specific difference instead (*ibid*). But Feser gives us no reason to think that genres *not admitting of* alternative specific differences would stand in potency to their specific differences. More importantly, even if Feser's argument succeeds, the argument would only entail that the *genus* (or—if we are talking about the relation between species and members—the *species*) has potencies; nothing automatically or necessarily follows about the particular concrete things *within* the genus having potencies. (Or, at least, *Feser has not shown* that <the particular concrete things *within* the genus have potencies> follows from the fact that <the *genus itself* has potencies>.)

Finally, this second line of argumentation likewise poses a problem for Trinitarianism. For under Trinitarianism there's more than one member of the "kind" *divine person*, in which case there must be some privation or perfection (and—per Feser's reasoning—potency) that one divine person has that the others lack. But this would entail potency within God, and that's incompatible with God's being purely actual. (And if you deny that divine persons make up a "kind," why not deny the same thing of purely actual beings?)

We don't think, then, that Feser's inference to uniqueness works. But perhaps you have a lingering worry. Perhaps you are wondering, "without one of the purely actual beings having potency, what could differentiate them? In virtue of what could they be individuated?"

We have three responses. First, many philosophers think the Identity of Indiscernibles is false because individuation or distinctness is (or can be) *primitive*. In that case, there need not be some feature that grounds things' distinction. At the very least, we need some positive argument in favor of the principle, since the onus of justification in this context is on *Feser* to positively demonstrate uniqueness.⁷ Second, the problem of Trinitarianism rears its head: if the Father and Son are purely actual, we can equally ask: what distinguishes them? If having some distinguishing feature entailed potency (as would need to be the case for the present worry to have teeth), then no purely actual thing could be trinitarian.⁸

Third, some difference in *actual*, not potential, features of the purely actual beings could individuate them. Suppose that one purely actual being is a timeless, non-spatiotemporal universal wavefunction we can call *Bob*. Bob is timeless and so immutable and so has no potential for change. We can also suppose that (i) all of Bob's features are essential to Bob, in which case Bob has no potential for cross-world variance, and (ii) Bob is independent and necessarily actually existent, in which case Bob has no potential for non-being (as well as no potential for *being* that is actualized by another, for then Bob would be dependent). So, Bob is purely actual *simpliciter*. Suppose that Bob has a probability distribution D for giving rise to such-and-such particles. Now just imagine another non-spatiotemporal universal wavefunction called *Fred* that has a different probability distribution, D*. (Say, instead of having a 1% objective probabilistic causal power (as Bob does) to bring about particle Q, Fred has a 2% probability here. Or, if one demurs that quantitative attributes entail potentiality,⁹ we can suppose that Bob and Fred simply have qualitatively different objective propensities or tendencies.) We here have a feature that individuates Bob and Fred (namely, D versus D*), and this doesn't by itself entail potency in Bob or Fred.¹⁰

⁷In Schmid ([Forthcoming](#)), I (Joseph) critically examine one such argument from explicability. (Note, though, that I do think that, *ceteris paribus*, theory A is preferable to theory B if theory A (but not theory B) explains the distinction between x and y.)

⁸Obviously, we aren't unaware that many traditional Christians take the relations of procession to distinguish the divine persons. But then having a distinguishing feature doesn't entail potency, *pace* the present argument for uniqueness.

⁹Which, we note, would require denying that a purely actual being could be trinitarian, for the latter obviously entails a quantitative attribute pertaining to the number of persons. (We also think it's obviously false that limitation entails potentialities. Something could easily be *necessarily* limited in various ways, for instance.)

¹⁰Note that all we need to do in this dialectical context is provide a coherent counterexample to the claim that the only individuating features could be potencies. We don't need to *justify* or *defend* our counterexamples as *true* or *possible*. The onus is on *proponents* of the inference to uniqueness to demonstrate that these are *not* possible. Otherwise, they fail to demonstrate that anything purely actual would be unique.

One might object at this point that Bob and Fred, in the previous scenario, would be composite, and that this entails the possession of potency. For example, perhaps their parts have the potential to be separated.

We have three replies. First, it's not clear that Bob and Fred must be composite. Perhaps Bob and Fred are numerically identical to everything intrinsic to them—in which case, they would not be composite (per the classical theistic understanding of parthood canvassed in Chap. 1). You might think it's obvious that (say) Bob couldn't be identical with D and that Fred couldn't be identical with D*. But many find it equally obvious that God couldn't be numerically identical with God's omniscience, omnipotence, goodness, aseity, timelessness, necessary existence, desire that all shall be saved, belief that $1 + 1 = 2$, action of saving the Israelites, action of creating the universe, and so on. Arguably, the moves classical theists make to respond to charges along the lines of "omniscience is obviously distinct from omnipotence" will equally equip us with moves in response to charges along the lines of "Bob/Fred is obviously distinct from D/D*."¹¹

Second, we think it's false that composition entails potency. Consider the number two. The number two has various properties distinct from itself, such as the property of being even. But anything with various properties is a composite thing (by the lights of those who accept a broadly classical theistic understanding of parthood). So the number two is a composite thing. But the various parts of the number two do not have the potential to be separated (since the number two, if such an entity exists, would be a *necessarily existent* entity—two wouldn't just *happen* to exist in some worlds and not others). Moreover, all the intrinsic properties of the number two (e.g., being a number, being even, etc.) are essential to the number two, in which case the number two has no inherent potencies. The number two, then is both composite and devoid of potency. Potency therefore doesn't follow upon composition.¹² More generally, we see nothing wrong with Bob or Fred being necessarily

¹¹ Or perhaps Bob and Fred are metaphysically simple module tropes. As Sijuwade ([Forthcoming](#)) points out, "there is nothing more to a trope than its nature... Tropes are thus primitively qualitative and irreducible entities—they lack proper parts, and thus are metaphysically simple entities." See also Maurin (2018) and Alvarado (2019), among many others.

¹² Again, whether you think the number two exists is irrelevant, since we're concerned with *in principle counterexamples*. One might think that the number two has a potency for existence that requires being actualized by something else, or perhaps some essential property whose potency for existence is actualized by something else. Perhaps that "something else" is a necessary intellect, or perhaps it's the number one together with the successor function. We have several responses. First, the focus on the number two is inessential; we need simply pick an abstract object lying at the bottom layer of some grounding hierarchy relating abstracta. This, of course, doesn't rule out a necessary intellect that actualizes such an object or its properties; but the onus is not on *us*, in the present context, to positively show that this is *false*; the onus is on the one *positively claiming* that composition entails potency to show that *any composite*—including such an abstract object at the bottom level of the abstract grounding hierarchy—has potency. "But doesn't Feser do precisely that in his Augustinian proof?", you ask. "Well," we respond, "for starters, he only argues that abstracta exist as divine ideas. This doesn't entail that abstracta have (passive) potencies that are *actualized* by the necessary intellect. But *even if* Feser were correctly interpreted as attempting to establish this, Feser's attempt is only that—an *attempt*. But as we explain in Chap. 10, his attempt fails." But also, this move isn't open to the classical theist. For under this theistic conceptualist view, the number two is intrinsic to God. Hence, if the number two has passive potency, then there is passive potency intrinsic to God. But God, *qua* purely actual, is altogether devoid of intrinsic passive potency.

existent, independent beings all of whose (intrinsic) features are essential to them. And this would mean that Bob and Fred are purely actual despite being composite. (If, of course, we grant that they're composite to begin with.)

Third, we can simply modify the scenario to avoid composition altogether. At least by the lights of Christian classical theists, the fact that a purely actual being is trinitarian doesn't entail that the being is composite. But then it would seem intolerably arbitrary to suppose that a *unitarian* or *binitarian* purely actual being must be composite. We could therefore simply suppose Bob is a binitarian (or unitarian) (quasi-)divine being whereas Fred is trinitarian (quasi-)divine being. Here we have more than one purely actual non-composite being with individuating features between them.

Finally, we want to defend non-classical theistic models of God from Feser's (unsupported) charge that "[i]f there were in God a distinction between genus and specific difference, or between his essence and his existence, then there could in principle be more than one God" (2017, p. 189). First, this claim is simply flatly asserted. Second, Feser's inferences to uniqueness from such theses fail. (We've already seen how the inference fails in the context of the Aristotelian proof, and we will see in later chapters that it likewise fails in the context of the Neo-Platonic and Thomistic proofs.)

Third—and most importantly—the claim is straightforwardly *false*. For there are *other ways* to secure God's uniqueness wholly apart from DDS. Nearly all models of God affirm that God is perfect. In contemporary philosophy of religion, a *perfect being* is understood as a being that possesses all perfections essentially and lacks all imperfections essentially (Bernstein 2014). But here's something that seems like an obvious perfection: being the source of every concrete thing apart from oneself (i.e., being that on which all other concreta depend for their existence).¹³ But this perfection entails uniqueness. For suppose that there could be two concrete beings, *x* and *y*, each of which enjoys this perfection. Then *y* would depend for its existence on *x*, and *x* would depend for its existence on *y*. But this is a vicious circle of dependence, which is impossible. Hence, there cannot be two concrete beings with this perfection. Hence, there can only be one perfect being in principle. (A perfect being would be concrete rather than abstract.) Hence, Feser's claim is false.

For the reasons surveyed above, we conclude that Feser's inference to uniqueness fails. Next we turn to Feser's inference to goodness.¹⁴

¹³ In any world in which there *are* such concrete things, of course.

¹⁴ For further criticisms of classical theistic arguments for the uniqueness of something that is purely actual and pure *esse*, see Schmid (Forthcoming) and Kakol (2007).

8.2.4 Goodness

Because being less than fully good means having some privation—and because having some privation entails failing to realize or actualize some potential feature that is proper to a thing—it follows (so Feser argues) that the purely actual being is fully good.¹⁵

Feser himself recognizes the limitations of this line of reasoning, however. He writes that the “sense of ‘good’ and ‘bad’ operative here is the one that is operative when we speak of a good or a bad specimen, a good or bad instance of a kind of thing” (2017, p. 217). By itself, then, this inference is unable to establish the purely actual being’s *moral* goodness (and, in particular, the kind of *omnibenevolence* we want to ascribe to God). Indeed, it’s not clear how the inference to *fully good* is any different from Feser’s inference to *maximally perfect*. Both inferences argue that the purely actual being fully realizes the ends set by its nature, and hence that the purely actual being is maximally perfect and fully good. Like Feser’s account of maximal perfection, this account of goodness would entail that an exact geometric circle (again, not the approximations we draw or print) would be “fully good,” since an exact geometric circle has no privations and fully realizes the circle’s essence. Likewise, as before, McSwitch, the suffering-inducer, and so on are fully good. And *that* is surely false.

Note, however, that we need not argue that we should *reject* Feser’s inferences to maximal perfection and goodness. (Though, to the extent that one shares our intuition that McSwitch, the circle, the suffering-inducer, etc. are not maximally perfect or fully good, one has *pro tanto* reason to reject the inferences.) We can, instead, simply highlight their extreme *limitations*. Neither inference—to *maximally perfect* and *fully good*—delivers any religiously significant, distinctively divine attribute. Thus, even if our case for their failure *itself* fails, we have still shown the extreme limitations of the relevant inferences. They don’t deliver what they might *seem* to deliver on superficial grammatical inspection.

Feser also argues that because there is goodness in creation, there must likewise be something analogous to goodness in the creator: “For given the principle of proportionate causality, whatever good there is or could be in the world must in some way be in God. But if something is the source of all possible goodness, then there is an obvious sense in which it is all good” (2017, pp. 221–222).

This, however, won’t do. For starters, because Feser can only infer that there is a *single* purely actual being that causes all else to exist by demonstrating uniqueness, and because the inference to uniqueness fails, this inference to omnibenevolence likewise fails. For the purely actual being is only guaranteed to contain *whatever* good is in “creation” if the purely actual being is the *single creator* of that creation.

Second, the Principle of Proportionate Causality (PPC) states that whatever is in an effect must be in the cause in *some* way—formally, virtually, or eminently. But if the purely actual creator possesses moral goodness in a mere “eminent” fashion (as

¹⁵ A similar argument is offered in Siniscalchi (2018).

opposed to possessing moral goodness formally or virtually), this need only involve the creator having the capacity *to produce* creatures with moral goodness.¹⁶ It doesn't follow that there is any moral goodness (let alone *maximal* goodness) actually possessed or exemplified by the creator *itself*.¹⁷

Indeed, there are parody arguments in the vicinity that are not compatible with such an appeal. For instance, there are extended, material, potential, and composite things in creation, but classical theists would resist inferring therefrom that there must likewise be something analogous to extension, materiality, potency, or composition in the creator.

Let's turn to the inference to omnipotence.

8.2.5 *Omnipotence*

Here's Feser's argument for omnipotence:

1. To have power entails being able to actualize potentials.
2. Any potential that is actualized is either actualized by the purely actual actualizer or by a series of actualizers which terminates in the purely actual actualizer.
3. So, all power derives from the purely actual actualizer.
4. But to be that from which all power derives is to be omnipotent.
5. So, the purely actual actualizer is omnipotent. (2017, p. 37)

But as Feser recognizes, the success of this demonstration presupposes the success of the inference to uniqueness—and hence this demonstration fails (on account of the failure of the inference to uniqueness). The reason this presupposes uniqueness is that (2) presupposes that every distinct *per se* chain of actualizations of potential ultimately terminates in one and the same purely actual being. Without assuming uniqueness, however, there is no guarantee that the terminus of each of the countless causal chains within reality is the *same* being.

There are, however, more proximate worries for the argument even granting (i) the uniqueness of a purely actual being, and (ii) the *per se* existential causal dependence of all changeable beings on the causal activity of the purely actual being. (The

¹⁶And if the PPC requires a cause to “include” anything *more* than such a capacity, then we would not only find PPC unmotivated but deeply implausible (given our discussion of the PPC in Sect. 8.2.6).

¹⁷As W. Matthews Grant and Mark Spencer write, “For the perfections in creatures need not be had by God in the same way; rather, they can be really in creatures, but only ... in God inasmuch as He can be causally responsible for them in creatures” (2015). They continue: “For instance, acts of discursive reasoning are perfections in some creatures, and healthy skin a perfection in others. These perfections must somehow exist in God, but the conclusion does not follow that God (questions of the Incarnation aside) engages in acts of discursive reasoning or has healthy skin” (2015, fn. 67).

second assumption is required because the argument presupposes not only the uniqueness of pure actuality but also that all existent changeable things (and all their powers) causally depend on the purely actual being. Without this, the purely actual being is not “that from which all power derives.”)

For starters, the argument requires that the derived powers in question are *either* directly *or* indirectly explained or caused by the purely actual being. There are two reasons for this. First, supposing that the purely actual being is perfect or fully good, such a being plausibly doesn’t have the *direct* power to do horrendously evil things. Second, the very nature of the Aristotelian proof entails that the purely actual being only has all powers in a direct *or* indirect manner. For the argument rests on hierarchically ordered *chains* of sustaining causation, meaning that the purely actual being could (for all the argument specifies) be capable only of sustaining certain things in existence *by means of* one or more intermediaries.

But this seems to pose a problem for the inference to omnipotence. For all the argument shows, the purely actual being could have a single direct power—the power to causally produce (say) a particular being (a finite spirit, say). This spirit, in turn, could have all (possible) direct powers except the power to produce itself. For all the argument shows, such a spirit is a necessary intermediary in any *per se* chain.

The purely actual being in such a scenario does *not* seem to be omnipotent. After all, in such a scenario the purely actual being has a *single* (direct) power—the power to produce the spirit. Intuitively, a being with only a single (direct) power is not omnipotent. In fact, plausibly the spirit is *more* powerful in such a case; unlike the purely actual being, the spirit can (directly) produce multiverses, angels, demons, galaxies, philosophers, and amoebas. Feser’s account of omnipotence misdiagnoses this scenario, and hence his inference to omnipotence fails. (Specifically, premise (4) is false—plausibly, that is *not* the correct account of omnipotence.)

More fundamentally, (4) is a clearly wrongheaded account of omnipotence. To be omnipotent is *not* merely to be the source of all power. At least minimally, *omnipotence* should include a perfectly efficacious will. As Pruss and Pearce put it, “Perfect efficacy of will is a necessary condition for omnipotence: a being whose will could be frustrated would not be omnipotent” (2012, p. 409). But *x*’s being the source of all power tells us nothing about (i) whether *x* even *has* a will, (ii) *if x* has a will, whether that will is efficacious, and (iii) *if x*’s will is efficacious, whether it is *perfectly* efficacious.¹⁸ Premise (4)’s falsity is thus multiply overdetermined.

¹⁸ Notice that even if we grant Feser’s inference to perfection, and even if we grant that the purely actual being has a will, we cannot conclude that the will is *perfectly efficacious*. The reason is that Feser’s notion of perfection allows for a being’s will to be frustrated and nevertheless *perfect*, since a frustrated will (i.e., a will whose intentional object is *p* but that doesn’t *result* in bringing about *p*) might very well be an end set by *x*’s nature or essence, such that for *x* to fully realize the ends of its nature (and hence to be a perfect *x*) *just is* to have a frustrated will. This is what happens when you employ (as Feser does) a *metaphysical* sense of *perfection*.

8.2.6 Intelligence

To derive the intelligence of the purely actual being, Feser appeals to the PPC. According to the PPC, whatever feature *F* exists in an effect *E* must exist in the total cause of *E* in some manner (formally, virtually, or eminently).

John Cottingham has argued that the PPC implies an absurd heirloom view of causation wherein features are “passed down” from cause to effect: “[H]elium has properties which were not present in the hydrogen from which it was formed by fusion,” and a sponge cake “has many properties—e.g. its characteristic sponginess—which were simply not present in any of the material ingredients (the eggs, flour, butter)” (1986, p. 51).

Feser thinks this objection is mistaken, since the PPC does not specify that *F* must be in the total cause formally (i.e., actually); *F* simply has to be present in the (total) cause formally, virtually, or eminently. Anticipating this, Cottingham writes: “One may be tempted to say that the sponginess must have been ‘potentially’ present in the materials, but this seems to defend the [PPC] at the cost of making it trivially true” (1986, p. 51).

Feser replies that while this explanation is *minimally* informative, it is not *uninformative* (2017, p. 172). Hence, the effect may be present *potentially* in the cause—either in terms of a passive potency (i.e., a capacity to be affected in some way) or in terms of an active potency (i.e., a causal power to produce an effect). These roughly correspond to virtual and eminent presence in causes, respectively.¹⁹ We don’t understand how these amount to the effect “being present in” the cause—indeed, we’re not even sure we understand this “being present in” talk—but set that aside. What matters is that we have *some* sort of grasp on the PPC.

With the stage set, we can turn to Feser’s inference to intelligence:

1. The purely actual actualizer is the cause of all [changeable] things.
2. So, the forms or patterns manifest in all the things it causes must in some way be in the purely actual actualizer. (From PPC)

¹⁹There’s significant debate about how to understand virtual and eminent containment, and unfortunately Feser doesn’t clearly unpack what he means by the terms. Here’s how we use the terms: Roughly, *F* is present *virtually* in the cause if *F* can be educed or “drawn out” (as it were) from the cause by means of some causal operation on it. For instance, cookie shapes are virtually present in dough, as they can be drawn out or educed from it through some operation on the dough. Virtual containment thus corresponds to *passive* potencies of the object from which the effect can be drawn out. Roughly, *F* is present *eminently* in the cause if the cause has the causal power to produce *F* (as when—to use one of Feser’s examples—one has the ability to print genuine twenty-dollar bills). Eminent containment thus corresponds to *active* potencies of the object from which the effect is produced. This is supported by something Feser writes elsewhere. He writes that his example of virtual containment involves “the passive potency of my bank account to have twenty dollars drawn from it,” while his example of eminent containment involves “the active potency of the Federal Reserve Bank printing press to run off a new twenty dollar bill” (2014, p. 174). Other commentators are explicit that *S*’s eminently containing *F* involves *S*’s ability or capacity to *produce* or *bring about* *F* (cf. Gorham 2003). For more on virtual and eminent containment, see Newlands (2013, 2016) and the references therein.

3. These forms or patterns can exist either in the concrete way in which they exist in individual particular things, or in the abstract way in which they exist in the thoughts of an intellect.
4. They cannot exist in the purely actual actualizer in the same way they exist in individual particular things.
5. So, they must exist in the purely actual actualizer in the abstract way in which they exist in the thoughts of an intellect. (2017, p. 37)

What to make of this argument?

One problem is that (3) is a false dichotomy. Recall the minimally informative understanding of the PPC: F must be in the total cause formally, virtually (as a passive potency), or eminently (as an active potency or causal power). All that we can infer, then, is that the purely actual being either has F formally, as a passive potency, or as a causal power to produce F. Now, a purely actual being clearly has no passive potencies. We can grant, moreover, that the purely actual being cannot possess all F's formally. But this doesn't entitle us to infer that F must be in the purely actual being in an abstract or universal way as thoughts in an intellect. Rather, all we're entitled to infer is that the purely actual actualizer has the *power to produce things* with F.

Here's another worry for the argument. Feser holds that something has (or is) an intellect if it can "possess" or "contain" or "have" the form of something without actually becoming the thing in question. But no argument is offered for this account of the intellect. Moreover, there are many (*prima facie*) perfectly coherent alternative accounts of intellection in terms of mental representation, the realization of certain functional states, and so on. Indeed, we have difficulty wrapping our minds around what Feser's account of intellection actually consists in. How could the very essence or form of (say) felinity somehow reside in you (or your mind)? What exactly *is it* for you to "have" the form of felinity? Why does Feser insist on saying that an intellect has the *form* of felinity instead of saying that the intellect simply has a *concept* (or some other mental representation) of felinity? If the correct account of the nature of intellection is in terms of (say) having *concepts* (rather than having or "containing" forms), then the mere fact that <the forms of things are "had by" or "contained in" the purely actual being> does not imply that <the purely actual being is an intellect>.

For these two reasons, Feser's inference to intelligence fails.

8.2.7 Omniscience

Here's Feser's argument for omniscience:

1. Since it is the forms or patterns of all things that are in the thoughts of this intellect, there is nothing that is outside the range of those thoughts.
2. For there to be nothing outside the range of something's thoughts is for that thing to be omniscient.

3. So, the purely actual actualizer is omniscient. (2017, p. 27)

As Feser himself recognizes, the success of this inference presupposes the success of the inferences to uniqueness and intelligence. Since the inferences to uniqueness and intelligence fail, the inference to omniscience likewise fails.

Here are two, more fundamental problems with the argument. First, all Feser has shown (granting *arguendo* the inferences to uniqueness and intelligence) is that the abstract forms or patterns of concrete things exist in the purely actual being as abstracted concepts in an intellect. But concepts alone are merely the atomic *components* of thoughts; the mere possession of (all) concepts neither means nor entails the possession of (all) *thoughts*. Second, even if we can arrive at propositional thought, knowledge doesn't simply involve truths "being in the range" of one's thoughts (whatever that means). Merely thinking a thought does not suffice for knowledge; in addition, some form of warrant or justification is required. (Knowledge may also require a non-accidentality condition to avoid the Gettier problem.)

Now, Feser anticipates both of these worries, and we'll consider his responses in turn. In connection with the first problem, Feser writes:

[T]hat the *state of affairs* of the cat's being on the mat holds at any instant is also due to God's causal activity. [So,] given the principle of proportionate causality ... the state of affairs of the cat's being on the mat in some way exist[s] in God. In particular, it must exist as the *proposition* that *the cat is on the mat*...[T]he proposition that *the cat is on the mat*, considered as the content of a thought, is the correlate within an intellect of the state of affairs of the cat's being on the mat. (2017, p. 209)

Here, Feser is arguing from (i) the PPC and (ii) the fact that the purely actual being is the cause of all states of affairs to the conclusion that the propositions that *describe* such states of affairs must exist in the being's intellect as the contents of thoughts. There are at least six problems with this argument.

First, Feser misapplies the PPC. Recall that the PPC only requires that the features of effects exist in the cause formally, virtually, *or* eminently. Now, the state of affairs in question cannot exist formally within the cause, as an actual cat and mat do not reside in the purely actual cause (hereafter, "God"). Moreover, God has no passive potencies from which a cat and mat can be educed. We are only entitled to infer, then, that the cause has the eminent causal power whereby it is capable of producing the state of affairs in question. And the mere possession of such a causal power clearly doesn't entail propositional thought.

Second, the Aristotelian proof only affirms that individual changeable *substances* require efficient causal sustenance in order to exist. Nowhere in the Aristotelian proof is it established that *states of affairs* also require a sustaining cause. Feser does argue for the claim that states of affairs obtain *due to* God's causal activity. But this claim is ambiguous between (i) God causes the state of affairs to obtain, and (ii) God causes *substances* to exist, which in turn—along with substances exemplifying certain properties—*constitute* or *ground* the obtaining state of affairs.

But only (i) facilitates an inference (by means of the PPC) to the containment of the state of affairs within the total cause, since the PPC deals only with *effects* (and their features) being contained in their (direct) causes. But on (ii), the state of

affairs is *not* a direct effect of God; only the substances (and perhaps their properties and/or actions) contained in the state of affairs are God's effects. No reason has been given that any causal activity on the part of the purely actual being is required to actualize the state of affairs over and above the causal activity required to explain the being and activities of the concrete objects *comprising* the state of affairs. Feser therefore hasn't established that the purely actual being causes such states of affairs (as opposed to causing the atomic constituents of such states of affairs—constituents that *themselves* go on to ground the obtaining states of affairs).

The third problem with the argument is that even if the purely actual being has justification (to which we turn later), and even if the purely actual being has propositional thought, this is still insufficient for knowledge. *Belief-like states or propositional attitudes* are plausibly required in addition. And the mere fact that propositions are contained as thoughts within the purely actual being does not entail that such a being also has belief-like states or propositional attitudes directed towards them. In other words, it's not enough merely to *contain* the propositions in thoughts; one must also take certain *attitudes* toward such propositions or thoughts—believing them to correctly (or incorrectly) represent reality, i.e., *taking them to be true (or false)*. Feser has established nothing about the purely actual being's attitudes toward its propositional thoughts (or whether it's even capable of having such attitudes).

Fourth, even if we could show that the being has belief-like attitudes toward the propositions, there is no guarantee that the propositional attitudes accurately track the truth values of the propositions in question. Even if the PPC entails that the state of affairs must exist in the cause *qua* propositional thought, this is perfectly compatible with a propositional attitude toward the given proposition being either affirmative or negative. For the propositional content exists in the cause *regardless* of the cause's attitude towards it. Hence, the PPC alone is insufficient for propositional attitudes that are truth-tracking.

Fifth, Feser has given us no reason to think that there even *are* such things as *states of affairs*. Perhaps there are objects, and perhaps these objects have various properties, and perhaps, further, these objects are related to one another in various ways. But are there *states of affairs* in addition that require causal actualization by the first cause? It's not clear. Note that committing to the existence of states of affairs is *required* for Feser's inference to omniscience to go through. For if there are no states of affairs, then there are no states of affairs that stand in causal relations. But it was precisely the causal dependence of states of affairs on God that inspired Feser's argument.

Worse, it's not clear how an ontology involving states of affairs is compatible with classical theism. On classical theism, (i) God is free to refrain from creating anything, and (ii) the existence of anything distinct from God requires God's

creative actualization thereof.²⁰ From (i) and (ii), it follows that God could have existed alone, unaccompanied by anything else. But if we have an ontology featuring states of affairs (say, to serve as the worldly correlates of true propositions), surely there would be the state of affairs of *God's freely choosing not to create*, *God's intending to exist alone*, and so on in the world in which God exists alone.²¹ But then God *doesn't*, after all, exist alone! He's accompanied by the aforementioned contingently obtaining states of affairs. Plausibly, then, we must choose between classical theism and an ontology featuring states of affairs. We cannot have both.

The sixth and final problem with the argument is that *even if* the argument succeeds, it fails to show that *all* propositions exist in God's intellect. Even if we ignore all the previous problems, the argument only allows us to infer, via the PPC, that the states of affairs that God *causes* exist in God as the propositional content of God's thought. But this is utterly insufficient for *all* propositions existing in God's intellect as contents of divine thoughts. What of mathematical and logical truths? What of propositions about God himself? What of propositions about impossibilia? To be sure, Feser does say the following:

Now, what is true of the proposition that the cat is on the mat is true also of every other proposition about what things exist or might exist, and what states of affairs obtain or might obtain. God knows *all* such propositions. Moreover, he can hardly have any less knowledge about *himself* than he has about things other than himself, any more than an author can know less about his own creative act of coming up with a story than he knows about the story itself. (2017, p. 211)

But these are just bald assertions. Feser simply *asserts* that what is true of the proposition that the cat is on the mat is true of every other proposition about what things exist or do not exist. To be sure, Feser's argument *does* generalize beyond the cat and the mat—in particular, it generalizes to any *created* or *caused* state of affairs, since we *can* infer, via the PPC, that *effects* are pre-contained (in some manner) in their *causes*. We can infer, in other words, that propositions reporting *caused* states of affairs exist in God. But as far as Feser's argument goes, we're entirely in the dark about whether propositions reporting *uncaused* states of affairs exist in God as the contents of divine thoughts.²² And as for Feser's glib suggestion that God can hardly have any less knowledge about *himself* than about other things, there are several

²⁰ As Feser says regarding (i), "he [God] need not create any world at all" (2017, p. 227). And as Feser says regarding (ii), "anything that exists or could exist, and anything that something does or could do, depends at every moment on God's causal action" (*ibid*, p. 208).

²¹ Feser himself says that "among the states of affairs that obtain are the state of affairs that the proposition that *the cat is on the mat* is a true proposition, and the state of affairs that the proposition that *unicorns exist* is a false proposition" (2017, p. 210). But then the state of affairs that the proposition <unicorns exist> is false will be a contingent state of affairs obtaining in the world in which God creates nothing. (For in such a world, God creates no unicorns, and hence the relevant proposition is false, and hence the relevant state of affairs obtains.) But then God *doesn't*, after all, exist alone in the world in which God creates nothing. But this flatly contradicts classical theism.

²² Again, examples of such propositions include mathematical and logical truths, propositions about God himself, propositions about impossibilia, and so on.

problems with this. First, Feser offers no justification for this claim. Second, we haven't even established that the purely actual intellect (here referred to as "God") *has any knowledge whatsoever* at this stage in the dialectic—we're still in the process of trying to determine whether there are even *propositions* within God's mind about God, about math and logic, and about impossibilia.

Let's now tackle Feser's response to the second fundamental problem relating to *justification*. Note, first, that getting to this stage requires lots of assumptions: uniqueness, intelligence, propositional content within thoughts, propositional attitudes, and truth-tracking attitudes. We have argued that all of Feser's inferences to these assumptions fail. Nevertheless, let's see what Feser has to say:

[O]ne knows some proposition *p* when (a) one thinks *p* is true, (b) *p* really is true, and (c) one thinks *p* is true as a result of some reliable process of thought formation...[T]here can be no more reliable way of determining whether some proposition *p* is true than being able to *make it the case* that it is true...[A]s God himself causes it to be the case that the cat is on the mat, God certainly has a reliable way of 'finding out' whether such a proposition is true. (2017, pp. 210–211)

But, plausibly, making a proposition true can only confer justification if one is in some sense *aware* that one is making the proposition true. For instance, a fetus makes many propositions true by causing states of affairs to obtain, but the fetus does not thereby possess knowledge of such propositions. Similarly, a rock makes many propositions true by causing states of affairs to obtain, but obviously rocks don't enjoy knowledge. What's missing is an *awareness* or *cognizance* of making the proposition(s) true, as well as an appropriate *connection* between that awareness and the fact that one is making the relevant proposition(s) true. But Feser has not established that the purely actual being has or even *could* have awareness, let alone awareness that the purely actual being is making certain propositions true. Nor has Feser established that there is or even *could* be an appropriate connection between that awareness and the relevant fact(s). For these two reasons, Feser has failed to address the problem of justification. His inference to omniscience therefore fails for *yet another* reason.

Let's turn, now, to Feser's inference to free will.

8.2.8 Free Will

Feser argues for the free will of the purely actual being (referred to as "God") in stages. First he argues that God has a will, and second he argues that God's will is free.

Feser offers two arguments for the claim that God has a will. Feser's first argument runs as follows. The argument begins by articulating a specific conception of *will*:

Like other animals, we can pursue our various characteristic activities consciously, but unlike other animals, we have intellects and can *conceptualize* the objects of such pursuit. We tend or incline toward something because we *rationally apprehend* it as worth pursuing,

or incline away from something because we rationally apprehend it as not worth pursuing. We possess *rational appetite* or *will*. (Feser 2017, pp. 223–224)

One problem at this juncture is that Feser simply *asserts* this account of will; he offers no *justification* for it. Accordingly, his first argument for God's having a will fails from the get-go. But let's continue, since the argument fails elsewhere.

The argument continues:

Now, we have seen that there is in God something analogous to what we call intellect in us. And there must, accordingly, also be something in God analogous to what we call will in us. For one thing, just as a tree or a dog tends or inclines toward the realization of its nature (in a nonrational way), and a human being tends or inclines toward the realization of its nature (in a rational way), so too must God tend or incline toward the realization of his nature (in a rational way). To be sure, unlike these other things, God does not have to *do* anything to realize his nature, since he is always and already fully actual. But in this he is more like something which has completed the realization of its nature than he is like something which never tended or inclined toward such realization in the first place. We might say that there is in him something like the limit case of rational appetite. (Feser 2017, p. 224)

The first problem with this passage is that Feser's inference to God's *intelligence* fails. Hence, this argument for God's will fails. The second problem is that Feser flatly *asserts* but does not *justify* the claim that God tends or inclines toward the realization of God's nature. Feser hasn't even shown at this juncture that God has *any* tendencies or inclinations whatsoever. *Even if* God has an intellect and apprehends something as worth pursuing, it doesn't thereby follow that God has any *tendency* or *inclination* to pursue said good. At the very least, Feser owes us an *argument* for this claim rather than bald assertions. Finally, Feser *flatly asserts* that God is more like something which has completed the realization of its nature than something which never tended or inclined toward such realization in the first place.²³

Feser's first argument for God's will therefore fails. The second argument runs:

God apprehends *all* the things that could exist, and *causes some* of those things actually to exist while *refraining* from causing others of them to exist. Hence, there must exist in him something analogous to *willing* the former and not willing the latter. (2017, p. 224)

Note first that the success of this inference presupposes uniqueness, intelligence, omniscience, and so on. Since all those inferences fail, this inference fails. Second, Feser's language here is somewhat ambiguous (e.g., "refraining" can be interpreted in several ways, but one natural interpretation merely *presupposes* will—we wouldn't tend to say, in ordinary language, that (say) a rock *refrains* from breaking windows). A more neutral description of the situation is that the purely actual being is (purportedly) not *necessitated* to create everything the purely actual being comprehends (assuming it even *has* comprehension to begin with—something Feser hasn't shown). But this is perfectly compatible with a non-willed, non-intentional, indeterministic causation. No argument has been given as to why such a being's

²³ Remember, we aren't here working within a pre-given theological paradigm. The use of "God" is just shorthand for "a purely actual being allegedly delivered by the Aristotelian proof's first stage." We're trying to see whether this being is *properly deemed "God" to begin with*.

non-necessitated actions are *intentional* and under agential *control* (i.e., that it is *up to* the purely actual being what it produces).²⁴

Let's turn to the argument that the purely actual being's will must be free. Feser notes, first, that nothing *external* to the purely actual being could possibly compel the purely actual being to act as the purely actual being does. After all, the purely actual being has no potencies to be affected from without. Feser then argues that nothing *internal* to such a being compels the purely actual being to act either, as the purely actual being's concepts do not, by themselves, specify or determine whether their referents will (or must) be in reality:

Now, there is nothing in the concept of a lion that makes it necessary that lions exist, nor is there anything in the concept of a unicorn that makes it necessary that unicorns do not exist. Nor is there anything about any other concept that necessitates that the former exist and the latter do not. Before creation, then, a world with unicorns in it was as possible as a world with lions in it. (2017, p. 225)

Hence, such a being has an uncompelled (and thus free) will.

There are many problems with this argument. First, the argument does not establish that such a being is uncompelled. Feser's argument that nothing internal to such a being compels the being to act is unjustified, as the argument presupposes that we have a complete (or else representative) grasp of *all concepts* that do or could exist within the divine intellect. For if this condition is not met, then for all we know, there are concepts within the purely actual being's intellect that make it necessary that their intentional objects—or the intentional objects of other concepts—exist (or make it necessary that the purely actual being bring about their existence).²⁵ Hence, for all we know, a purely actual being *is* internally compelled. Without the aforementioned presupposition, the inference fails. But no justification has been given for this presupposition.

Moreover, why should we think that the only candidate internal compulsions are *concepts* within the purely actual being's intellect? Not only does Feser merely *assume* as much with *zero* justification, but the claim also seems obviously false. Perhaps the very nature of perfect love or goodness provides some kind of “internal compulsion.” As the Dionysian principle tells us, goodness is by nature *diffusive*, and many historical and contemporary thinkers have argued that this entails that a perfectly good God *must* diffuse God's goodness to creation. Concepts, then, simply aren't the only candidate necessitating factors, *pace* what would need to be the case

²⁴ Indeed, one of us has argued elsewhere that classical theism poses a serious challenge to God's control over which of God's possible effects obtains. See Schmid (2022a, b).

²⁵ Consider, for instance, that merely by examining their concept of water, people before the discovery that water is H₂O may very well have reasoned that nothing in the purely actual being's concept of water makes it necessary that water is H₂O, and hence that the purely actual being could make water that is not H₂O. Clearly, this argument is mistaken, but it's precisely what Feser is asking us to infer about the purely actual being's concepts of creatures. And just as there is a “hidden necessity” in water's being H₂O, Feser fails to provide a reason to think that there are no hidden necessities concerning (some or all) creaturely existence.

for Feser's argument to succeed.²⁶ Or perhaps a version of the *agere sequitur esse* principle is true, according to which action follows being—anything that necessarily *exists* must necessarily *act* as it does, and so it is necessary that God create.²⁷ Options abound for other candidate “compulsions.”

Feser's argument for the freedom of the purely actual being therefore fails.²⁸ Thus, Feser has established *neither* that the purely actual being enjoys a will *nor* that said will is free. Let's turn to the final stage two inference we'll consider: immateriality.

8.2.9 Immateriality

Feser writes: “Since to be material entails being changeable and existing within time, an immutable and eternal cause must be *immaterial* and thus *incorporeal* or without any sort of body” (2017, p. 29). Unfortunately, nowhere in Feser (2017) does Feser *justify* why being material entails being changeable and existing within time. Perhaps Feser takes this to be self-evident, but it is *by no means* self-evident. Atemporal wavefunction monism—a view on which there exists a fundamental, *physical*, non-spatiotemporal entity—is a perfectly respectable view that has seen a blossoming of interest in philosophy of physics.²⁹ If we understand “material” and “physical” to be synonymous, then there are perfectly respectable views on which there is an unchangeable, timeless, *material thing*. Unless and until Feser demonstrates that such views are false, his inference to the immateriality of the unchangeable, purely actual being simply fails.

One might wonder whether atemporal wavefunction monism is compatible with EIT. Whether the two are compatible depends on the relationship between the non-fundamental, spatiotemporal things and the fundamental, non-spatiotemporal universal wavefunction upon which they continually depend. If the universal wavefunction in some manner *composes*, or *constitutes*, or *makes up*, or is otherwise *intrinsic* to spatiotemporal things, then EIT is preserved. Otherwise, however, EIT is violated. Note, then, that there are perfectly respectable naturalistic views on which EIT is false. Naturalism is not at all wedded to EIT.

²⁶ We are not arguing here for the *positive* claim that God necessarily creates. Rather, we're pointing out that Feser's argument would only work if the sole candidate compulsions internal to God are *concepts*. But, first, Feser gives no justification for this assumption, and second, there are several other candidate compulsions. We don't claim that they *do* compel God to create. We're pointing out that Feser has failed to show that they *don't*. (If you can't tell, we've been indelibly scarred by people flagrantly misunderstanding burdens of proof and dialectical contexts.)

²⁷ Again, we're only talking here about a *version* of the *agere sequitur esse* principle that implies this. We don't claim *every* possible version implies this.

²⁸ Our criticisms of Feser's inference here apply *mutatis mutandis* to a similar inference in Hsiao and Sanders (2022).

²⁹ For more on wavefunction monism, see the next section.

The naturalist can also hold that the non-spatiotemporal foundation of reality—the universal wavefunction, or some quantum field(s), or whatever—exists of metaphysical necessity.³⁰ Naturalism is thus perfectly compatible with a spaceless, timeless, uncaused, necessarily existent, independent, unchangeable, cross-world-invariant, explanatory foundation of everything apart from itself.³¹ This naturally leads to our next section wherein we spell out atemporal wavefunction monism in more detail.

8.3 Strengthening the Gap Problem: Atemporal Wavefunction Monism*

Let's take a moment to remind ourselves of the broader dialectical context—broader, that is, than the Aristotelian proof. Classical theists have crafted persistence arguments for God's existence, according to which the persistence of temporal concrete objects through time is explained by the sustaining activity of a timeless God. In reply, detractors can appeal to EIT, according to which temporal concrete objects persist in existence without external sustenance unless subject to sufficiently destructive factors.

But suppose we deny EIT. In that case, friends of persistence arguments will need to show that the classical theistic explanation of the persistence of temporal concrete objects is better than non-theistic explanations. Here, we point out that, according to a family of views in contemporary philosophy of physics, there is a fundamental physical entity that is neither spatial nor temporal and that can explain

³⁰ We could suppose, further, that this foundation only *indeterministically* explains non-fundamental reality. This averts necessitarianism. (We reject the overtly gratuitous claim that only personal agents endowed with free will can indeterministically explain things. Some interpretations of quantum mechanics, for instance, offer us perfectly consistent models containing physical, impersonal, indeterministic explanations. Regardless of whether such models are *true*, they show that it's *false* that only free and personal agents could, in principle, indeterministically explain.)

³¹ There are also non-naturalistic but non-theistic views which affirm as much—e.g., some interpretations of the Neo-Platonic One, Brahman, Tau, and countless other impersonal ultimates. (Indeed, we think that an impersonal ultimate is a far better candidate for the conclusion of classical theistic arguments. If they succeed, what they most plausibly deliver is an impersonal, unfree, absolutely simple, purely actual reality—perhaps even *subsisting being itself*—albeit a reality that couldn't care less about us.)

the persistence of temporal concrete objects.³² We do not have space for a full defense of this view. Our aim is more modest. We aim merely to point out that there is an explanation of the persistence of temporal concrete objects in terms of a timeless yet wholly physical entity and that friends of persistence arguments have not shown their explanation to be superior.

In quantum mechanics, the state of a system is often said to be specified by an object referred to as either the wavefunction or the state vector. In quantum cosmology, quantum gravity, and in some interpretations of quantum mechanics, the state of the entire universe (or even the entire physical world) is understood to be, in principle, represented by a wavefunction called the *universal* wavefunction. Physicists and philosophers of physics often use the term *wavefunction* to refer to both a bit of mathematics and to a physical object represented by that mathematics (Ney 2021, p. 34). We will do the same here. Let's define *wavefunction monism* as a family of views that share the following principles: (i) there is a hierarchy of fundamentality; (ii) there is exactly one most fundamental object; and (iii) that one most fundamental object is the universal wavefunction. (The "monistic" moniker tracks the wavefunction's status as the *sole ultimate or fundamental reality*; this does *not* imply that the wavefunction is the *sole reality*. There are lots of *non-fundamental* realities like you and me, birds and bees, etc.)

Wavefunction monists differ in how they understand the universal wavefunction as well as how they understand the relationship between the universal wavefunction and all other physical objects. For David Albert (1996, 2013, 2015, 2019a, b), Barry Loewer (1996), Alyssa Ney (2012, 2013, 2020, 2021), and Jill North (2013) the universal wavefunction is a field either defined on configuration space or on some

³² Because the physical entity is timeless, it has no potentials for change. In terms of fleshing out the view, we can also suppose that the entity has no intrinsic features that could vary across worlds, in which case it has no potential for cross-world variance. Finally, we can suppose that it necessarily exists and is the independent foundation of reality, in which case it also has no potentials for existence or non-existence that could be actualized. The physical entity, then, is *purely actual*. (This is compatible with thinking every spatiotemporal, material substance is a composite of prime matter and substantial form and hence enjoys, minimally, the potency associated with prime matter. The latter view doesn't imply that *non-spatiotemporal* but *physically describable* entities must be composites of form and matter. And in any case, the wavefunction monist can simply deny hylemorphism (as well as other highly contentious metaphysical views, e.g., ones on which essences stand in potency to their acts of existence). It significantly hampers stage two if, in order to infer *God's* existence, we must embrace a whole concoction of controversial metaphysical views. At the *very* least, Feser's stage two promised to be independent of such views!)

more exotic state space (Ney 2020; also see Ney 2021, ch. 4).³³ For Julian Barbour (1999), the universal wavefunction is a field defined on superspace, that is, the space of possible configurations of spacetime,³⁴ and with a distribution and amplitude defined by the Wheeler DeWitt Equation. And, for Sean Carroll (Forthcoming; 2019) and co-author Ashmeet Singh (Carroll and Singh 2019), the universal wavefunction is a state vector in Hilbert Space. The relationship between the universal wavefunction and all other physical objects can be variously characterized as functional realization, grounding, supervenience, emergence, or in some other way, though not plausibly in terms of efficient causation.

We can distinguish two families of wavefunction monist theories. In one family of theories—which we will call *temporal wavefunction monism*—the universal wavefunction is a temporal, non-spatial object.³⁵ Temporal wavefunction monists maintain that space (or at least ordinary three dimensional space) can be exhaustively explained in terms of the universal wavefunction. Because temporal wavefunction monists believe that the most fundamental object is temporal, in order to explain the continued existence of the universal wavefunction, temporal wavefunction monists can invoke EIT (and, in particular, a metaphysical account thereof).

According to a second family of theories—which we will call *atemporal wavefunction monism*—the universal wavefunction is both non-temporal and non-spatial. For atemporal wavefunction monists, spacetime *itself* can be exhaustively explained in terms of the universal wavefunction. For example, atemporal wavefunction monists might maintain that spacetime, as well as all of the spatio-temporally extended objects that inhabit spacetime, are functionally realized by (or perhaps grounded by) the universal wavefunction. Because the universal wavefunction is atemporal, the universal wavefunction does not persist in time. But if the atemporal wavefunction monist is right that, at least in principle, the universal

³³ Albert and Loewer sometimes take physical reality to fundamentally be a so-called “marvelous point” coupled to a universal wavefunction. If the reader prefers, the definition of wavefunction monism can be modified to include the marvelous point. Moreover, one may object that, at least for Albert, Loewer, Ney, North, and Barbour, the universal wavefunction is a field defined on a high dimensional space and that a field is most naturally thought of as a distribution of properties over a space. For that reason, the definition of wavefunction monism can be modified to involve, e.g., the view that there is a high dimensional substance—the configuration space or superspace substance—in which a distribution of properties inheres. If so, instead of thinking of the universal wavefunction as the fundamental object, we may consider the high dimensional substance the fundamental object. This modification would not substantially alter our argument.

³⁴ By the space of possible configurations of spacetime, we mean the space of three-dimensional manifolds consistent with the Einstein Field Equations. Superspace is the configuration space of General Relativity.

³⁵ We can distinguish between two senses of the word “spatial.” In one sense, an object is spatial just in case the object occupies ordinary three-dimensional space (or four-dimensional spacetime). In a second sense, an object is spatial just in case the object occupies *some* space, even if that space is not ordinary three-dimensional space (or four-dimensional spacetime). Wavefunction monists agree that the wavefunction is not spatial in the first sense but differ as to whether wavefunctions are spatial in the second sense. Temporal wavefunction monism should be understood as denying only that the universal wavefunction is spatial in the first sense.

wavefunction exhaustively explains spacetime, as well as all of the material objects that inhabit spacetime—in which case, the universal wavefunction would exhaustively explain the persistence of spatiotemporal objects.

As a last step, we turn to a brief summary of reasons that one might endorse atemporal wavefunction monism. Here, we offer no more than a gesture toward arguments that have been more completely and rigorously offered elsewhere. Our summary is not meant to be exhaustive. We also emphasize that the onus of justification, in the dialectical context of persistence arguments, is not on *us* to provide *positive* reasons for *accepting* atemporal wavefunction monism; rather, we need only point out that persistence arguments give those who accept (or are neutral on) atemporal wavefunction monism no reason to *abandon* their position and accept classical theism. To infer *God's* existence, defenders of persistence arguments need to offer reasons to *rule out* atemporal wavefunction monism—i.e., they owe us reason to think it's *false*. Nevertheless, we will gesture towards *some* positive reasons for atemporal wavefunction monism to fortify this alternative explanation of persistence.

Arguably, one of the central lessons of General Relativity is that spacetime (i.e., the metric tensor field) is numerically identical to the gravitational field. This suggests that a quantum mechanical treatment of gravitation will be a quantum theory of spacetime. In non-relativistic quantum mechanics, the probability that a given system will have a specific state can be calculated from the wavefunction. For example, consider a non-relativistic electron inhabiting a one-dimensional world. In that case, the probability that the electron will be found between x and $x + L$ is given by the integral of the square modulus of the wavefunction, in the position space representation, between x and $x + L$. An analogous principle is true in relativistic quantum field theory, where instead of, e.g., assigning probabilities to positions in space, one assigns probabilities to entire field configurations (Huggett 2000, pp. 621–622). And so the suggestion goes that quantum gravity theories should include a wavefunction (or wavefunctional) that assigns probabilities to configurations of the gravitational field, that is, to configurations of spacetime. In that case, wavefunction monism should say that the wavefunction is more fundamental than configurations of spacetime and so more fundamental than spacetime itself. Moreover, if we understand spacetime as a classical field, then spacetime should be recoverable only as the classical limit of a successful quantum gravity theory; indeed, a variety of proposals for quantum gravity theories agree that spacetime is reducible to some more fundamental entity (see, e.g., Le Bihan 2020).

A second argument can be constructed by considering one standard procedure—the canonical quantization procedure—for developing quantum theories from classical theories. We do not have room here to examine what the canonical quantization procedure is, what alternatives there might be for developing quantum theories from classical theories, or whether any specific application of the canonical quantization procedure has been correctly carried out. We note only that the canonical quantization procedure is a standard procedure that has yielded empirical successes in other contexts and that, when applied to General Relativity, has been argued to yield an analogue of the Schrödinger Equation for the quantum gravity context called the

Wheeler-DeWitt Equation (Butterfield and Isham 2006; Healey 2002; Earman 2002; Barbour, 1994, 1999). In turn, the Wheeler-DeWitt Equation has no explicit time dependence. According to one popular interpretation, the equation describes the universe as occupying a timeless quantum state and so an atemporal wavefunction. In order to recover the time enjoyed by objects situated within the universe, physicists pursuing the canonical quantization approach to quantum gravity typically argue that time can be reconstructed in terms of a parameter internal to the universe that can play the functional role of time. As Carlo Rovelli describes, “An accepted interpretation of [the disappearance of time] is that physical time has to be identified with one of the internal degrees of freedom of the theory itself (*internal time*)” (1991, p. 442). If so, the wavefunction monist should say that time is explanatorily downstream of the universal wavefunction.

We have offered atemporal wavefunction monism in order to *undercut* the inference to God as the explanation of persistence. In other words, our intention is to show that we haven’t been given sufficient reason for drawing the *theistic* inference preferred by friends of persistence arguments. In order for persistence arguments to successfully show that God exists and explains persistence, they must *rule out* the atemporal wavefunction monist explanation thereof (or at least show that their theistic explanation is *more probable* than available non-theistic explanations). But friends of persistence arguments have done no such thing. To be sure, arguments against wavefunction monism have been considered within philosophy of physics, but whether any of those arguments succeed—much less succeed in rendering wavefunction monism less probable than theistic explanations of persistence—remains controversial. Moreover, we have gestured toward two reasons favoring the atemporal wavefunction monist view, which at least suggests that atemporal wavefunction monism is rationally defensible. Hence, persistence arguments do not successfully show that God exists and explains persistence.

8.4 Conclusion

We stressed at the beginning of this chapter the dearth of scholarly appraisals of the various stage two inferences in the Aristotelian proof. The purpose of this chapter was, in part, to redress this neglect. Herein we leveled a variety of criticisms to the effect that Feser’s inferences from purely actual being to God fail.

We found in previous chapters a whole host of new problems for the First Way and stage one of the Aristotelian proof. But suppose—contrary, of course, to what we’ve argued—that all the problems we articulated for such arguments fail. *Even still*, the arguments only succeed in demonstrating the existence of God conditional upon the success of stage two. As we hope to have shown in this chapter, however, stage two—at least in its Feserian manifestation—*drastically* fails in delivering the divine attributes it promised. Our chapter, however, hasn’t been *purely* negative; we also strengthened the Gap Problem by articulating *atemporal wavefunction monism* as a defensible alternative model of reality’s foundation.

What are we left with? Even *granting* stage one, what sort of being has Feser shown to exist? He hasn't shown that the being is unique. He hasn't shown that the being is morally perfect, or morally good, or supreme in value.³⁶ He hasn't shown that the being is an intellect, or that the being is personal, or that the being enjoys free will. He hasn't shown that the being is omnipotent, or omniscient. He hasn't even shown that the being is immaterial. At best, we have one or more unchangeable sources of the changes in and existence of changeable things—a *very* far cry from *God*.

In the next chapter, we will assess the Neo-Platonic proof. Can its various working parts be sustained?

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³⁶ Assuming that things have natures, that there are teleological ends inherent to such natures, and that there is a distinctively *metaphysical* sense of “goodness” and “perfection” that tracks the realization of such ends, Feser has shown that the purely actual being is “maximally perfect” and “wholly good” in said *metaphysical* senses of such terms. But as we've seen, this leaves us entirely in the dark about what those ends might be. They might be ends oriented towards the production of suffering, or the production of black holes, or the unceasing and exclusive contemplation of octagons, or whatever.

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Chapter 9

The Neo-Platonic Proof



9.1 Introduction

The Neo-Platonic proof reasons from composite beings to the existence of an absolutely simple being. The general line of argument traces back to the fifth of Plotinus's *Enneads*, but the argument also enjoys a family resemblance with other contemporary arguments.¹ The primary focus of this chapter is stage one of the argument. Formally, the argument proceeds:

1. The things of our experience are composite.
2. A composite exists at any moment only insofar as its parts are combined at that moment.
3. This composition of parts requires a concurrent cause.
4. So, any composite has a cause of its existence at any moment at which it exists.
5. So, each of the things of our experience has a cause at any moment at which it exists.
6. If the cause of a composite thing's existence at any moment is itself composite, then it will in turn require a cause of its own existence at that moment.
7. The regress of causes this entails is hierarchical in nature, and such a regress must have a first member.
8. Only something absolutely simple or noncomposite could be the first member of such a series.
9. So, the existence of each of the things of our experience presupposes an absolutely simple or noncomposite cause. (Feser 2017, p. 80)

¹ See the first chapter of Gerson (1994) for an exposition of Plotinus's own argument. Feser's Neo-Platonic proof—while situated within a broadly neo-Platonic line of thought—is Feser's *own* refined and updated argument. For an exposition and defense of distinct but somewhat related arguments along Neo-Platonic lines, see Vallicella (2000) and Vallicella (2002). Much of what we say herein applies to such arguments *mutatis mutandis*.

In simpler terms, whatever has parts requires a concurrent, sustaining efficient cause that combines the parts; chains of concurrent, sustaining efficient causation—because they are ordered hierarchically or *per se*—cannot descend infinitely; hence, there exists a non-composite first cause of the existence of composite things.

Here's the chapter's structure. We first discuss some necessary preliminaries in Sect. 9.2. Next, we argue in Sect. 9.3 that the argument fails to establish the God of classical theism insofar as premise (3) is appropriately regarded as unmotivated by detractors of classical theism. We also address Feser's inference to the *mindedness* of the absolutely simple being. Finally, we argue in Sect. 9.4 that the argument is inimical to Trinitarianism and the Incarnation on several fronts.

9.2 Preliminaries

Before turning to our criticisms of the Neo-Platonic proof, it's necessary to remind ourselves of several background concepts.

The first of these is the Big Four and especially the Doctrine of Divine Simplicity (DDS). Because we already considered these in Chap. 1, we'll be brief here. The Big Four include simplicity, immutability, timelessness, and impassibility. This chapter focuses especially on the traditional Doctrine of Divine Simplicity (DDS). According to DDS, God is utterly devoid of physical, metaphysical, and logical parts; God is identical to God's essence, existence, attributes, action, power, and so on. On DDS, a part is a positive ontological item intrinsic to S but distinct from S. This understanding of parthood is the only understanding with which we'll concern ourselves throughout this chapter.

The second preliminary is also one we considered in Chap. 1: neo-classical theism. Neo-classical theism shares several commitments with classical theism: God is essentially morally perfect, creates and sustains the world *ex nihilo*, exists of metaphysical necessity, enjoys comprehensive foreknowledge, and so on. But unlike classical theism, neo-classical theism rejects or modifies the Big Four. For present purposes, we will focus on neo-classical theism's denial of DDS—i.e., its affirmation that God has parts in the sense of items intrinsic to but distinct from God, such as multiple divine attributes, potential for accidental change, and so on.

With these preliminaries covered, we can turn to our first set of criticisms of the Neo-Platonic proof.

9.3 Premise Three

Premise three embodies what we will call the Neo-Platonic Causal Principle as applied to composite objects (i.e., concrete objects with parts):

Neo-Platonic Causal Principle (NPCP): Any composite object requires a sustaining efficient cause of its existence—that is, an outside or external cause that concurrently combines the parts together to constitute the object at any moment at which it exists.

Why should we believe NPCP? The central motivation seems to be a kind of *explanability* requirement—that is, a requirement that the combination of parts (at any given moment of a composite object’s existence) be *explained*. Feser proceeds through candidate explanations (the whole itself, say, or one or more of its parts) and finds them all wanting. Rejecting appeal to inexplicability or brute facts, the only remaining explanation (according to Feser) would be some external cause or principle that accounts for the unity of the parts.

In order to evaluate this central motivation, let’s proceed through Feser’s reasons for ruling out various alternative explanations of the unity (at any given moment) of a composite object. For ease of exposition, we’ve broken down the reasoning (in Feser, 2017, Chap. 2) into a series of *four steps*. Before doing so, however, we develop our “master criticism” of NPCP and Feser’s justification thereof. The master criticism is that an external sustaining efficient cause isn’t needed to explain a composite object O’s existence at non-first moments *m* of O’s life, since this can easily be explained, instead, in terms of a metaphysical account of EIT from Chap. 6. Nothing Feser says on behalf of NPCP provides *any* reason to think *any* such metaphysical account fails, and hence Feser fails to justify why an *external sustaining cause* is needed to explain O’s existence at *m*. By our lights, this is perhaps the biggest problem for NPCP and the Neo-Platonic proof itself. Alas, we’ll set this problem aside to evaluate Feser’s four-step case for NPCP on its own merits. Onward we march, then, to *step one*.

Step one is that all composites depend on their parts. Feser writes that “a composite is less fundamental than its parts in the sense that its existence presupposes that its parts exist and are put together in the right way” (2017, p. 70). Moreover, argues Feser, “a composite depends on its parts not merely (and indeed not necessarily always) in a temporal sense, but more fundamentally (and always) in an atemporal sense. At any particular moment, a composite thing’s existence will presuppose that its parts exist and are put together in the right way at that moment” (*ibid.*, p. 70).

One worry thus far is that the mere fact that a given composite object *presupposes* the existence and combination of the object’s parts does not entail that the object *depends* (in some causal or metaphysical sense) on those parts. It only entails that the existence and combination of the parts is a *necessary condition* for the existence of the whole. But this only implies a kind of logical or counterfactual dependence and not an *explanatory* dependence. (X logically or counterfactually depends on Y just in case had Y not existed, X would not have existed. Explanatory dependence has much more metaphysical “oomph” and conveys a causal or non-causal (e.g., grounding-style) ontological dependence relation between X and Y. In such cases, X’s existence and/or character is explained or accounted for in terms of Y’s existence, character, or activity.)

One way to see that logical dependence doesn't entail explanatory dependence is to consider that logical dependence can be *symmetric*, whereas explanatory dependence is necessarily *asymmetric*. On certain plausible views in the philosophy of mathematics, in any world in which Socrates exists, Socrates's singleton set exists. Socrates therefore cannot exist without his singleton set existing. But, likewise, plausible views in philosophy of mathematics entail that singleton sets exist only in worlds wherein their members exist. Hence, Socrates's singleton set cannot exist without Socrates existing (Baddorf 2016, p. 410). Thus, there's a logical dependence in both directions. But it's also clear that the set is in some sense *derivative* from Socrates's more fundamental existence.²

Indeed, even in the case of the independent God of classical theism, there are a whole host of necessary conditions or presuppositions of God's existence. For instance, the laws of identity and non-contradiction are necessary conditions for God's existence. God's existence thus "presupposes" such laws. But despite presupposing such laws as necessary conditions, God is still not metaphysically or explanatorily *dependent* on them.

So, again, logical dependence can be symmetric. But could explanatory dependence be symmetric? We don't think so. A circle of explanatory dependence seems metaphysically impossible. For if *x* explains the existence of *y*, and *y* explains the existence of *x*, then *x* is both *prior* to *y* (on account of *x*'s explaining *y*'s existence) and *posterior* to *y* (on account of *y*'s explaining *x*'s existence), which is absurd. Furthermore, since explanation is plausibly transitive, *x* would be explaining its own existence. But then *x* would be prior to itself, which is absurd. (Also, it's obviously *not* explanatory if, when asked why *x* exists, you respond "because *x* exists.")

But perhaps Feser's thought is one about *fundamentality* or *grounding*: wholes are dependent on their parts insofar as parts are more fundamental than and/or ground the existence of their wholes. But while this principle might be true in some cases, it is by no means clear whether *all* cases of part-whole relationships fit this schema. To us, at least, the view that some wholes ground the existence or character of their parts seems eminently plausible. As Baddorf writes:

[I]t is far from obvious that the only kind of thing that could satisfactorily explain compresence is an outside sufficient cause...[The neo-classical theistic] God's tropes are dependent upon God. This suggests another explanation for their compresence: they are compresent because they are each grounded in God. This is not a causal explanation, but it is plausible to think that it is an explanation nonetheless...This conclusion can also be supported by

²Nothing hangs here on set-theoretic realism. The example shows a distinction between logical/counterfactual dependence and metaphysical/explanatory dependence even if set-theoretic realism is false. What matters is that if it *were* true, logical and metaphysical dependence would come apart. And besides, there are boatloads of other examples that don't rest on set-theoretic realism where *x* and *y* logically depend on each other but either *x* doesn't metaphysically depend on *y*, or vice versa, or neither *x* nor *y* metaphysically depend on one another. Examples of *x* and *y* pairs that satisfy some of the aforementioned criteria are: (i) the truth of the law of non-contradiction and the truth of the law of excluded middle, (ii) the validity of modus ponens and the validity of modus tollens, and (iii) the properties *being triangular* and *being trilateral*.

more general argument. It is plausible that tropes are individuated by their bearers and so cannot exist without them. Or, similarly, it is plausible to think that tropes cannot exist without their bearers since they are merely ways their bearers are. (2016, pp. 408–409)

While Baddorf focuses solely on the distinction between God and God's property instances, Baddorf's central point is simply that some wholes (e.g., the neo-classical God) plausibly do ground their "parts." And this isn't an ad hoc move, either; for instance, on one prominent view, tropes are explanatorily posterior to (in virtue of being individuated by) their substances.

Moreover, whole-to-part explanation or grounding fits nicely with several (broadly) (neo-)Aristotelian views. Several such views conceive *parts* of substances as in some sense less fundamental than the substances they compose, since their identities are intelligible only in light of the substances to which they belong. For instance, under such views, something's being *your heart* presupposes *your metaphysically prior existence* as a whole, integrated, functionally unified substance. To be a heart is to be functionally integrated into an organic whole, such that the heart would cease to exist if not incorporated into the life of its biological organism.

Naturally, debates concerning divine aseity are bound to arise here. According to divine aseity, God is "an absolutely independent being—a being that does not depend on anything else for its existence" (Fowler 2015, p. 115). One of the principal motivations for DDS derives from aseity. If there were some item intrinsic to but distinct from God—that is, if God had some part—then God would be dependent on something that is distinct from God. As Aquinas (2022) writes, "every composite thing is posterior to its components and dependent on them. But...God is the first being" (*Summa Theologiae* I, q3 a7). One influential response to this line of reasoning derives from what Fowler calls the *Doctrine of Divine Priority (DDP)*: "For all *x*, if *x* is a proper part of God or *x* is a property of God, then *x* depends on God for its existence" (2015, p. 122). And since (metaphysical) dependence is asymmetric, God does not depend on God's parts. Like Baddorf, then, Fowler offers whole-to-part grounding as a viable model for understanding divine aseity and the independence of at least one whole.

What matters for present purposes, though, is that nothing in the Neo-Platonic proof—and, moreover, nothing Feser says on behalf of the Neo-Platonic proof's premises—provides any reason for thinking that such views of divine aseity fail. In any case, the live possibility (and, we would argue, plausibility) of whole-to-part grounding renders Feser's first step far from demonstrated. It is not at all clear that any whole whatsoever depends on its parts, and there are plausible views in mereology and metaphysics on which at least some wholes do *not* depend on their parts. Nothing in Feser's first step justifies a denial of these mereological and metaphysical positions. We conclude, then, that step one fails.

Let's turn, then, to *step two*: wholes cannot cause the combination of their parts. Feser writes the following in connection to a chair (the whole) and its parts:

How do the parts of a composite come together to form the whole? It can't be the composite itself that causes this to happen...[A]t any particular moment, the existence of the whole depends on the existence and proper arrangement of the parts. And the chair as a whole can't be the cause of those parts existing, and being assembled in just the right way, at that

moment. We would in that case have an explanatory vicious circle, insofar as the existence of the whole would depend on the existence and arrangement of the parts, and the existence and arrangement of the parts would depend on the existence of the whole. (2017, pp. 70–71)

Here's the problem with this step: even granting that wholes cannot efficiently cause the existence of their parts, this by no means entails that wholes cannot *explain* their parts. We've already canvassed defensible views according to which wholes can non-causally explain (or ground) their parts. And because vicious explanatory circularity is impossible, it follows that, in cases of whole-to-part grounding, the parts do not explain the existence of the whole. What's more, we saw in Chaps. 6 and 7 that on some metaphysical accounts of EIT, there are transtemporal causal relations linking the successive phases of the chair (assuming chairs lie within EIT's quantificational domain). In this case, the cause of the chair's existence *at t*—and hence the cause of the combined-ness of the chair's parts *at t*—is explained by the chair's (state and) existence *before t* together with the absence of sufficiently destructive factors operative. As we saw, there is nothing circular in this explanation of the combined-ness of the chair's parts at *t*. Feser's step here does nothing to rule any such accounts out, and hence Feser's step here fails to support NPCP.

Step three of Feser's case for NPCP is that it's clear that there are extrinsic causal factors that sustain composite objects in existence:

[T]he existence and arrangement of the chair's parts at any moment does not depend on the chair itself, but on myriad other factors...The legs and screws themselves exist at that moment because their respective molecules exist and are combined in certain specific ways...Then there are other factors, such as the temperature in the room in which the chair sits being within the right range...At any moment at which they exist, their parts exist and are arranged in just the right way, and that is the case only because various other factors exist and are combined in just the right way at that moment. *Composite things have causes...* (2017, p. 71)

There are numerous problems with this step. First, even if *macroscopic physical objects* clearly have such causes (in virtue of their situatedness within a physical context wherein a host of external conditions (like temperature, pressure, etc.) are in place—though, we've already criticized this in Sect. 7.3.3), it doesn't thereby follow that *any composite object whatsoever* requires an efficient sustaining cause.

Consider, for instance, the God of neo-classical theism. According to the classical theistic understanding of parts, the neo-classical God is a composite object. But it is extremely unclear why there must be a sustaining efficient cause of God's existence (or even how there *could* be). God is not situated within a physical context; God does not require a host of conditions to be in place in order to exist (like temperature, pressure, etc.); God is a necessary being; and God causes the existence of every concrete object apart from Godself. Under such an understanding, it is simply *metaphysically impossible* for there to be a pre-existing context of concrete objects that causally sustain the neo-classical God's existence, since there being such a context *already presupposes* the neo-classical God's prior creative activity. Nothing Feser says in any of the steps justifies a demand for a sustaining cause of the neo-classical God's existence. (And again, the onus isn't on *us* to show that this view is *true*; the onus is on *Feser* to *rule it out*.)

Or consider a naturalistic view according to which there exist ultimate, fundamental constituents of physical reality (whether they be particles (like quarks), one or more foundational physical fields, or what have you). No reason is given as to why *these* composite objects are likewise situated within a physical context wherein a host of external sustaining causes have to operate in harmony in order for such objects to exist. It's not at all clear why or how temperature, pressure, and the other factors cited are even relevant to the ground layer of physical reality. After all, such a ground layer is precisely that which ultimately accounts for how such physical contexts could even arise in the first place—and so for there to be a more fundamental, pre-existent physical context that sustains *them* in being would be absurd.

Now, one might at this juncture raise worries for this last example. Here are two worries one might level. First, one might question whether there even *is* such a fundamental, ultimate, ground layer of physical reality. That's a good question, but it doesn't adequately take into account the dialectical context at hand. Feser is aiming to give a *positive demonstration* of NPCP. One of the approaches he takes to justifying NPCP is *step three* (as we've outlined it), which appeals to (purportedly) clear cases of composite objects being sustained in being by a pre-existent physical context. But as we argued in the previous paragraph, one clear way to circumvent this justification is to hold that there *is* such a fundamental, ground layer to physical reality that provides a context for less fundamental physical realities but does not itself have some more fundamental physical context. Given that this circumvents step three, the success of step three as a justification for NPCP *presupposes* that there couldn't be such a fundamental, ground layer. The onus of justification is therefore on *Feser* to show why there couldn't be such a layer. Without such justification, step three rests on an unjustified assumption.

A second worry one might raise is that while there may not be a physical sustaining cause for this ground layer of physical reality, there must nevertheless be a *non-physical* cause sustaining the ground layer in being. But once again, this worry misunderstands the dialectical context at hand. For even if a non-physical sustaining cause is required, nothing in step three justifies the requirement of a non-physical sustaining cause. Step three simply adduces a broader physical context in which non-fundamental physical objects are situated. But no reason (thus far) has been given as to why there must exist a non-physical sustaining cause of this fundamental layer of physical reality. This bridges nicely into *step four*, one wherein Feser aims to do precisely that.

In the fourth and final step, Feser extends his arguments concerning physical composition to *metaphysical* composition:

The point is just that what has been said here about ordinary physical parts like chair legs and screws would be true also of metaphysical parts like form and matter, if they exist...For on the Aristotelian analysis, the form of something like copper or a tree is, all by itself and apart from matter, a mere abstraction rather than a concrete object...But matter all by itself and apart from any form is, for the Aristotelian, nothing but the *potential* to be something. It is only *actually* some thing if it has the form of some particular kind of thing. So, though form and matter are different, there is a sense in which form depends on matter and matter depends on form. We would thus have an explanatory vicious circle if there were not something outside them which accounted for their combination. (2017, p. 73)

Feser then goes on to apply the same reasoning to other (purported) forms of metaphysical composition, like essence-existence composition. There are, however, several problems with this fourth step. We'll be brief with them, though, since we already criticized precisely this Feserian argument in Sect. 7.3.5.

First, the step is quite dialectically limited insofar as it rests on contentious commitments to various kinds of metaphysical parts. Indeed, Feser offers no reason here to think that there even *are* such things as metaphysical parts. Second, even granting such commitments, vicious explanatory circles are metaphysically impossible *regardless* of whether there's an extrinsic cause accounting for the viciously intertwined things. If hylemorphism entails that two things are viciously intertwined—such that the existence of each metaphysically explains the existence of the other—then that would simply be a *reductio* of hylemorphism. Far from demonstrating the need for an extrinsic sustaining cause of any composite object, Feser's fourth step simply imputes a metaphysical impossibility to composite objects *from the get-go*. And if Feser holds instead that *x* only metaphysically explains *y* in some respect distinct from the respect in which *y* metaphysically explains *x* (in order to avoid absurdity), then his argument no longer has teeth. For then there is *no* vicious circularity, and hence the very means by which he motivated the need for an extrinsic source of *both x* and *y* is undercut.

Third, this hylemorphic argument, even if successful, would only show that *material* objects require something apart from them to explain their existence. The hylemorphic argument entails nothing about (say) the neo-classical God and so fails to justify NPCP as applied to *non-material* composite entities.

Fourth, even ignoring the above point, there are perfectly legitimate explanations of the combination of parts that *avoid* vicious circularity but that *do not* adduce extrinsic sustaining efficient causes. For starters, any metaphysical account of EIT would do the job. The accounts need simply be cast in terms of explaining the *unity of O's parts* at non-first moments of *O's* existence rather than explaining *O's existence* at such moments. But this is an easy fix—it only requires changing a few words in expositing each account. In fact, such re-casting isn't even necessary, since explaining *O's existence* at such moments will *ipso facto* explain the unity of *O's* parts at such moments—the former strictly entails the latter. Nevertheless, here's a toy example of how such re-casting would go with one of the no-change accounts from Sect. 6.6: For *O's* parts to *fail* to be combined at moment *m* despite being combined throughout $[m^*, m)$, $m^* < m$, is for some *change* to occur. But a change occurs only if some factor causally induces said change. Hence, if no factor causally induces a change, then the change won't occur. Thus, if no factor causally induces *O's* parts to fail to be combined at *m* despite being combined during $[m^*, m)$, then *O's* parts are combined at *m*. Once we add that nothing came along to causally induce this—that is, once we add that nothing came along to destroy *O* (or *O's* parts) or to separate *O's* parts from m^* to *m*—it simply follows that *O's* parts are combined at *m*. More generally, Feser's argument fails to rule out *any* such metaphysical account of EIT, and yet ruling out *all* such accounts is what he needs to do for his argument to succeed.

Second, there's the whole-to-part grounding that we covered earlier. Third, another seemingly legitimate candidate explanation for the unity of an object's parts is that it is *metaphysically necessary* that they be so combined. If we take the ultimate reality (be it the neo-classical God or some ground layer of physical reality) to be a necessary being, the unity of that ultimate reality's parts could easily be explained in terms of the metaphysical necessity of said unity. Now, we're not claiming that metaphysical necessity categorically precludes any further explanation. Rather, we're simply noting that metaphysical necessity may plausibly *itself* constitute a kind of explanation for something's obtaining. And even if the reader disagrees with this sort of view, the point is that nothing in the Neo-Platonic proof provides those who *accept* (or are even *agnostic* on) the explanatory legitimacy (in principle) of metaphysical necessity any reason to abandon their position.³

A fourth seemingly legitimate candidate explanation is that the *kind* of thing in question simply *requires* the obtaining of the explanandum. For instance, perhaps the neo-classical theistic God's essence simply *requires* existence, or perhaps unlimited perfection requires existence. And the legitimacy of this form of explanation seems eminently plausible. Consider the distinct properties⁴ *being triangular* and *being trilateral*. Why are these co-instantiated? Because (at least in part) they are simply the *kinds* of properties that *require* co-instantiation. This seems to be a perfectly legitimate explanation of their compresence or unity in something. The demand for some sort of concurrent sustaining cause keeping the two properties together does seem somewhat odd. And this plausibly generalizes to a being whose parts are all the *kinds* of things that *require* their unity and co-instantiation. (This problem compounds even further if there is a kind of intrinsic intelligibility to the parts' unity together: it is no coincidence, for instance, that omnipotence, omniscience, and moral perfection are all compresent and unified together in the neo-classical theistic God.)

Here's a fifth seemingly legitimate candidate explanation. The neo-classical theist is well within their rights in holding that the unity of God's parts flows from one simple component of God. Perhaps pure perfection is the root, the core, the

³Here's a way to appreciate why some philosophers think necessity can explain. Suppose the law of non-contradiction is true. Why? What explains that? Perhaps the explanation is that reality is consistent. But why is reality consistent? One of the only plausible answers that comes to mind is that "it just *must* be that way." By our lights, playing the "why?" game—that is, repeatedly asking *why* in a chain of explanations—will ultimately bottom out in "well, things just *have* to be that way—end of story." In fact, as we saw in Sects. 4.4 and 7.2.1, *defenders* of classical theistic proofs often appeal to the explanatory power of necessity—or, equivalently, impossibility (the two are interdefinable—in any case wherein the *necessity* of *p* is adduced to explain *p*, one could equally adduce the *impossibility* of $\sim p$ to explain *p*.) For instance, such defenders will often argue that the *reason* uncaused chaos doesn't pervade reality is that such is simply *impossible*. It should be noted, though, that our rejoinder to the Neo-Platonic proof does not rely on *showing* or *justifying* why necessity can explain. We are offering an *undercutting* defeater. In other words, we are arguing that (i) nothing in Feser's Neo-Platonic proof *rules out* the legitimacy of this kind of explanation (in principle), and yet (ii) ruling it out is *required* in order for the Neo-Platonic proof to succeed.

⁴Which are, again, *parts* according to the classical theistic understanding of parthood.

fundamental aspect of God. From pure perfection flows the purely positive great-making properties, e.g., omniscience, omnipotence, essential moral goodness, and so on. Pure perfection is like a spring from which flow the individual perfections or great-making properties. In this case, we have one “divine part” (in the broad, classical theistic sense) that explains the unity of God’s parts: all the distinct properties and powers flow from or are explained by the simple property of sheer perfection. Once again, we have an explanation of the unity of parts here, but nothing outside of or external to God is explaining or causing the unity. As Rasmussen puts it:

Perfection unifies all the attributes of the foundation. Perfection is the deepest attribute from which all positive attributes flow. From this singular aspect arises the foundation's moral nature (to act perfectly), its mathematical nature (to reason perfectly), and its great power to fine-tune a world for people like you and me. Perfection accounts for the self-sufficiency of the foundation: a foundation that is not self-sufficient is not perfect, while a perfect foundation is self-sufficient. Every positive attribute flows from the foundation's perfect nature. (2019, p. 148)

This kind of *internal* explanation of unity, moreover, is not restricted to neo-classical theists. Ingthorsson (2021, Chap. 6) develops an interactive view of causality informed by contemporary science and the metaphysics of causation. Ingthorsson’s explanation of the unity and existence of composite objects is of particular relevance to the Neo-Platonic proof. He provides several reasons for thinking that the unity of composite material objects is explained internally in terms of the causal, glue-like interactions among parts. In contradistinction to NPCP’s requirement of an *extrinsic* source or principle that causally sustains the unity, Ingthorsson cites *internal* factors to do the explanatory work. (More on this sort of view anon.)

There are many more legitimate explanations besides, but we won’t explore them for purposes of space. What matters here is that Feser’s fourth step in justifying NPCP does *nothing* to address the alternative explanations we’ve described. The main takeaway of this section, then, is the following. The detractor of classical theism—whether they are a neo-classical theist or a non-theist—need not appeal to inexplicability or brute facts to account for unity. There are perfectly sensible explanations of the (continued) unity of composites that don’t adduce sustaining efficient causes. We conclude that Feser’s third premise (i.e., NPCP) is not only unjustified but also dialectically ill-situated (insofar as detractors of classical theism have perfectly legitimate alternative explanations of unity).

Before turning to the mindedness of the absolutely simple being, we want to touch on something that—by our lights at least—Feser fails adequately to rule out (and which would need to be ruled out for his argument to succeed): why couldn’t the unity of something’s parts have an *internal* cause for their combination or “holding together” as opposed to an *external* sustaining cause?⁵

Feser does consider the proposal that something might be held together *internally* (i.e., without the need for an external sustaining cause to unify the thing’s parts). He considers two ways in which this might happen. First, a thing T with two parts, A and B, might have some *additional* part, C, which unifies the first two parts.

⁵Thanks to Vincent Torley for helpful ideas here.

Second, there may simply be no explanation for why T is made up of parts A and B. According to Feser, neither suggestion will do. Let's set aside *arguendo* the second proposal. On the first proposal, Feser demurs:

[T]he argument assumes that for a composite thing to exist, its parts have to be unified by some *external* cause. But why assume this? Why not suppose instead that it is precisely some part of a composite thing that unifies its parts, rather than something external? Or why not suppose that the fact that a composite thing's parts are unified is just an irreducible fact about it?

But as Vallicella has argued, neither of these suggestions really makes any sense. Start with the suggestion that the parts of a thing are unified by some further part. For instance, consider a thing composed of parts A and B. What makes it the case that parts A and B are united in such a way that the composite thing in question exists? The suggestion at hand is that there is some further part, C, which accounts for A and B being united. But the problem is that this just pushes the problem back a stage, since we now need to ask what unites C together with A and B. If we posit yet another further part, D, in order to account for the unity of A, B, and C, then we will merely have pushed the problem back yet another stage. And of course the problem will just keep recurring for each further part we posit. (2017, pp. 83–84)

The problem with Feser's reasoning here is that the two suggestions Vallicella proffers—the only two suggestions Feser considers, mind you—are *not exhaustive*. Recall that Vallicella and Feser are here considering the possibility of an internal explanation for the unity of a thing. But their suggestions for an internal explanation of A's being joined to B do not exhaust the possibilities as to why A is joined to B. For if the cause is internal to the composite object in question, the cause may be *either* A itself, *or* B itself, *or* some further part C (or some combination thereof). Vallicella and Feser criticize *only the third possibility*. That is, both Feser and Vallicella criticize an infinitely regressive postulation of additional parts (C, D, E, F, and so on). But this still leaves us with the possibility that either A itself or B itself is the cause of the conjoined-ness or unity of A and B. Feser here explores *neither* of these possibilities.

Consider, at this juncture, *table salt*. That is, consider a sodium chloride crystal, composed of repeated units of sodium and chloride ions bonded together in a lattice or crystal structure. Why are the sodium ions joined to or unified with the chloride ions? By our lights, a perfectly adequate explanation is that the *sodium ions themselves* bring about their conjoined-ness or unity with the chloride ions, while the chloride ions in turn bring about their conjoined-ness or unity with the sodium ions.⁶

It *would* be viciously circular if the sodium ions causally explain the *existence* of the chloride ions, while the chloride ions, in turn, causally explain the *existence* of

⁶We saw in Sect. 5.3.5 that Ingthorsson (2021, 2022) gives a causal interaction account of both constitution and persistence, arguing that the continued unity (and, hence, existence) of composite temporal concrete objects is explained internally by the continuous and dynamic glue-like interactions of their parts. Importantly, nothing Feser or Vallicella says constitutes an objection to Ingthorsson's causal interactionist explanation of both the synchronic and diachronic unity of composite material objects. (One thing Ingthorsson needs to explain, though, is the existence of those very parts that are interacting. But we have already covered this question at length here and in Chap. 6.)

the sodium ions. But this is decidedly *not* what this explanation says. Instead, the explanation says that each causes the other *to be attracted to the first*—that is, A causes B to be attracted to A, and B causes A to be attracted to B. This mutual attraction is perfectly intelligible and non-circular, since A's being attracted to B *does not presuppose* B's being attracted to A (and *vice versa*). These are distinct states of affairs, neither of which presupposes the prior reality or obtaining of the other.⁷

Furthermore, note that the explanation does *not* adduce some further, additional component C that unifies or combines A and B. The question Feser poses, then, as to what unites or combines C with A and B is a non-starter.

More generally, there may simply be a *single* component of a compound whose “attractive influence” explains its being combined with each of the other parts of the compound. This is a perfectly kosher explanation. Imagine we have a magnet whose intrinsic nature or character exerts an attractive influence on other things with a specific intrinsic nature or character that renders them amenable to magnetic attraction (e.g., a crystalline structure of atoms aligned in such-and-such directions). Imagine, further, that a nickel has precisely this character that renders it amenable to magnetic attraction. Once we bring the magnet and nickel together, they form a compound or unit. Importantly, there's no need for anything *external* to this compound or unit to explain the combined-ness or conjoined-ness of its two parts; instead, the explanation is in terms of *the very natures of those parts*.⁸ Feser might, of course, ask *why* the parts have the natures they do. But, first, this is a separate explanatory demand from explaining the unity or togetherness of the parts. Second, as Shamik Dasgupta (2016, pp. 383–387) quite convincingly argues, there are some facts for which it's mistaken to ask *why* at all. Dasgupta calls such facts *autonomous facts* and suggests that real definitions are plausible examples of autonomous facts. *What it is to be A* is, in part, to be something that “attracts” B to itself; if *A didn't* do that, *A wouldn't be A anymore*. That's all the explanation we need.

Note, finally, that the case of salt is merely illustrative. Obviously, the sodium and chloride ions are themselves composite, and so we should also look for an explanation of the unity or compresence or togetherness of *their* parts. The point is simply that a composite of A and B could easily be such that the explanation for the unity or togetherness of A and B is in terms of A itself, or B itself, or perhaps each of A and B. In the case of (say) the sodium ion, perhaps its own protons and electrons are responsible for their compresence or togetherness right now. What about (say) the unity of the proton's constituent quarks? This unity may very well be

⁷We should add, moreover, that an explanation of the unity of A and B in these terms is similar to one of the explanations of the unity or combination of form and matter—in terms of conditional potencies—discussed in Sect. 7.3.5.

⁸This offers a perfectly illuminating *internal* explanation of the unity of the relevant parts. (At the very least, nothing Feser says gives us any reason to think this explanation *fails*. Though, we think the former, stronger claim is obviously true.) Note, also, that the case of one part by nature *attracting* the other is just *one* example of an internal explanation. Another explanation might be in terms of one part by nature *generating the existence of* the other parts (e.g., by *grounding*). This, too, offers a perfectly kosher internal explanation of the unity of a composite object's parts.

brought about by those very quarks, just as sodium and chloride themselves bring about their compresence at any given moment. Now, plausibly, this regress must stop. Perhaps the *quarks* (or superstrings, or quantum fields, or the universal wave-function, or whatever) are the physically non-composite stopping point for the regress of physical constitution. And perhaps one or more of the *metaphysical* parts of quarks (granting *arguendo* Feser's constituent ontology) bring about their unity or togetherness, similar (again) to the sodium and chloride ions. And perhaps one or more of these metaphysical parts (e.g., some property or trope) is metaphysically simple. (This doesn't entail that an absolutely simple being exists, since this simple property isn't a *being*—i.e., this simple property isn't a *concrete object* in its own right. The property is also a *part* of something, unlike the classical theistic God. So this scenario doesn't deliver Feser's desired conclusion.) We also emphasize, once more, that this is only *one potential way* of explaining the unity of a composite object's parts at a given moment. We discussed a whole panoply of other ways earlier in this section and in Chap. 6.

With this further objection to Feser's NPCP covered, we can turn next to Feser's inference to the mindedness of the absolutely simple being.

9.3.1 *Mindedness*

Feser asserts in premise twenty-two of the Neo-Platonic proof that “[e]verything is either a mind, or a mental content, or a material entity, or an abstract entity” (2017, p. 81). From this, in conjunction with other considerations about complexity and dependence, Feser concludes that the absolutely simple being must be a mind.

Curiously, though, Feser gives no justification for this premise but instead cites Vallicella (2002, p. 255)—who himself gives no justification for the claim. Indeed, at least *in principle* the existence of a non-material, non-mental concrete entity seems eminently possible.⁹ Simply consider an impersonal principle from which all complexity and multiplicity derives—akin to some understandings of Plotinus's *One* (which, as we'll see below, is prior in being to Mind) or some understandings of the *Brahman* of Advaita Hinduism. In fact, we might plausibly take the Neo-Platonic proof (ignoring all its other problems) as an argument *for* this different category of thing.

Plotinus himself *rejected* a view according to which the absolutely simple, radically independent One (which transcends all multiplicity, qualification, and differentiation) is mental in the sense of something capable of thought and understanding.

⁹A complication is that “material” is notoriously difficult to define. Of course, if one *just means* by “material” anything that's both non-mental and concrete, then *of course* there can't be a non-material, non-mental, concrete thing. We set this complication aside, since this is a peculiar—indeed, quite implausible—definition of “material.” Under some understandings of Brahman or the Neo-Platonic One, for instance, such realities are concrete and non-mental (in the sense of being neither a mind nor a content of a mind). But they're also not plausibly viewed as *material*.

Gavrilyuk writes that, for Plotinus, “the divine Mind (*nous*), as the repository of the eternal Forms, represents a perfectly unified plurality, rather than perfect simplicity. For this reason, the divine *Nous* must be the second hypostasis, which derives from and is ontologically subordinate to the One” (2019, p. 442). Thought and understanding presuppose a distinction between subject and object, whereas the One is beyond all distinctions (Cohoe 2017, pp. 766–769).

This bridges nicely into the final problem for Feser’s inference to mindedness: it’s not at all clear how mindedness could be compatible with DDS. One problem derives from the (plausibly) necessary existence of abstracta. One might think that some *propositions* (say) are necessarily true and hence necessarily exist (provided that *x* cannot *be* anything (e.g., true, correspondent with reality, etc.) without existing).¹⁰ Or one might follow realist intuitions about the necessary existence of numbers, universals, or what have you.

The problem arises when we consider that (i) the existence of anything distinct from God presupposes God’s free creative act, and (ii) abstracta are distinct from God. Point (i) is a core commitment of classical theism: God is the sole ultimate reality from which all else derives its being. As Kerr (2019) points out, for Aquinas (and, we add, other thinkers in the tradition) God “is the unique subsisting source of being from which all existing things come” (p. 15), and creation is understood with “God as primary source of all things without Whose creative activity there would be nothing” (p. 44). Anything apart from God has its being sourced in God’s creative activity. Moreover, the classical theistic God is free to create or not (Pruss 2016, pp. 213–214; Kretzmann 1991, p. 208; Leftow 2016, p. 152). And point (ii) seems evident: there’s a multiplicity of abstracta, but there aren’t a multiplicity of Gods. God is not identical to the number 2, nor is God identical to the proposition that <one and one make two>, and nor is God identical to the universal *humanity*.

The result seems to be an inconsistent triad:

1. Abstracta (or some subset thereof) exist necessarily.
2. Abstracta are distinct from God.
3. Anything distinct from God requires God’s *free* creative bestowal of being—a bestowal God is free to give *or* not to give.

For given (3), anything distinct from God is contingent—it requires God’s creative actualization, something God is free to perform or not perform.¹¹ But given (1) and (2), that can’t be the case. To avoid the inconsistency, the classical theist must, it seems, maintain one or more of the following:

1. Abstracta either exist contingently or do not exist at all.
2. Abstracta are identical to God.

¹⁰For an argument for the necessary existence of (some) propositions from their necessary truth, see Rasmussen (2013). For arguments for necessarily existent abstracta, see Pruss and Rasmussen (2018, Chap. 7). We won’t expand on the point here, since Feser explicitly defends the necessary existence of abstracta in his Augustinian proof (2017, Chap. 3).

¹¹Along with the classical theistic tradition at large, we assume that God’s freedom (partly) consists in God’s ability to create and refrain from creating.

3. Either God is necessitated or compelled to create something distinct from God, or there exist entities distinct from God not resulting from God's creative actualization.

None of (4)–(6) look very attractive for the classical theist, however. Claim (4) denies plausible realist intuitions either about the existence of abstracta or their necessary existence. Claim (5) seems clearly wrongheaded: surely God cannot be identical to the number 2 and the number 7, since the number 2 is even while the number 7 is not even. God cannot be both even and not even.¹² Claim (6) also seems quite unappealing. Surely God couldn't be necessitated or compelled to create, and surely God must be fully provident and sovereign over the existence of everything distinct from God (which God wouldn't be if there existed necessary abstracta over which God has no causal control). To embrace (6), moreover, is simply to deny classical theism as traditionally understood.

But perhaps there's a *via media*: locate abstracta *within* the divine mind as thoughts and concepts (or otherwise grounded in such things). This, however, seems inconsistent with DDS. So long as such abstracta are not identical to God, they will thereby be *parts* of God (per the classical theistic understanding of parthood).

Even if this latter point is denied, a plausible mereological principle supports the same conclusion. This principle states that if *x* is intrinsic to *y*, and *x* is composite, then *y* is thereby composite (i.e., not absolutely simple). The principle is actually entailed by the classical theistic understanding of parthood. For suppose *x* is composite and intrinsic to *y*. Now suppose, for reductio, that *y* is non-composite. Since *x* is composite while *y* is non-composite, it follows that *x* is distinct from *y*. So, *x* is intrinsic to *y* but distinct from *y*. But that's precisely the classical theistic understanding of parthood. Hence, *y* is composite after all. But we assumed *y* was non-composite. Contradiction. Thus, the fact that *x* is composite and intrinsic to *y* entails that *y* is composite. (Given, of course, the classical theistic understanding of parthood.)

But according to the aforementioned *via media*, abstracta are intrinsic to God. So, if abstracta are composite, God is composite (per the mereological principle).

Clearly, some abstracta are composite given the classical theist understanding of parthood. As we saw in Sect. 9.2, properties are explicitly conceived as *parts* of their bearers. This is precisely why classical theists insist that God cannot have a multiplicity of properties, as that would introduce composition into God. But abstracta plausibly have a whole host of properties. For instance, if we reject deflationism about truth and instead adopt a correspondence theory according to which truth is a property of propositions, then propositions are composite. Propositions also have properties of aboutness or representation, of correspondence, and so on. Indeed, prominent accounts of propositions treat them as structured entities, composed of arrangements of simpler entities such as properties. Or consider the

¹² Similar points extend to clearly distinct propositions, e.g., $\langle 1 + 1 = 5 \rangle$ versus \langle the interior angles of a Euclidean triangle sum to two right angles \rangle versus \langle nothing can cause itself to begin to exist \rangle versus \langle Earth doesn't exist \rangle .

number two. Surely the number two has properties like *being even*, *being prime*, and so on. If these commonsense claims about abstracta are true, then abstracta are composite things. And hence God is composite.¹³ (Moreover, classical theists typically wish to affirm that there can only be one absolutely simple thing in principle—in which case, abstracta cannot be simple but instead must be composite.)

In sum, the Neo-Platonic proof doesn't deliver the mindedness of the absolutely simple being. In fact, the proof seems to militate *against* the mindedness of such a being (given other commitments of classical theism as well as certain core realist intuitions together with the aforementioned *via media*).¹⁴ Next we turn to new problems for the Neo-Platonic proof from Trinitarianism.

9.4 Trinitarianism

Orthodox, conciliar Trinitarianism (henceforth “Trinitarianism”) is committed to the following theses: (i) there is one God existing as three divine persons; (ii) the three divine persons are not numerically identical to one another; (iii) the divine persons are consubstantial or *homousios*; and (iv) the divine persons are distinguished and related by eternal processions—the Father begets the Son, and the Father and Son (or else the Father alone) spirate the Spirit (Mullins 2017, p. 183;

¹³ We will raise similar worries in our appraisal of Feser's Augustinian proof in Chap. 10, and we will also address an objection from “intentional (or conceptual) existence” therein. For this footnote, we want to focus on Panchuk's (2021) article on classical theism and divine ideas. Panchuk aims to accomplish three things in her article (*ibid.*, p. 399). Panchuk's first two aims are about character-grounding and diverse predication as they relate to God, which are clearly disjoint from our concern. Panchuk's third and final aim is similarly disjoint, since we are not concerned with how an absolutely simple act can be one of knowing a diverse array of objects. Her main contention within her third aim is that “In knowing Godself, God knows not only the divine nature, but also the many ways in which limited things can be like that nature. So, while the object of divine knowledge is multiple, the mode by which God knows it—i.e., through the simple divine nature—is simple” (p. 395). But this is not our concern here, since we're focusing on the *very ontological status* of (particular kinds of) objects which may or may not fall within our inventory of existing things, and how—if such objects *do* fall within said inventory—this would pose a challenge to DDS. In short, Panchuk does nothing to allay our concern. The closest she comes is addressing how a single act can be one of knowing a diverse array of things. But there's still the fundamental question about the ontological status of those things known—e.g., triangles, shapes, numbers, propositions, sets, and the like. We'll return to these issues in the next chapter.

¹⁴ Indeed, in light of this, the most plausible conclusion of Feser's argument—*granting* its success in establishing an absolutely simple reality upon which all else depends (which, of course, we wouldn't grant)—might very well be *atheism*. Any God would plausibly represent a unified plurality. This is especially true if there's a plurality of divine persons (and hence a numerical distinction between person and divine nature (and divine substance), since there's a plurality of the former but not of the latter), but it also applies to a plurality of divine ideas. (Even if such ideas merely *conceptually* exist, there's still a conceptual *plurality*.) Thus, if we follow the Neo-Platonic reasoning to its natural conclusion, any God would plausibly require an extrinsic source or principle that unifies its plurality. This source would be an atheistic, mindless, impersonal One. And surely a God that's dependent on another is no God at all. Perhaps, then, we have a new argument for atheism on our hands! (Thankfully for theists, the argument doesn't work for other reasons.)

Pawl 2020a). In the following sections, we'll argue that the Neo-Platonic proof is inimical to Trinitarianism on two fronts.

9.4.1 Uniqueness

The first problem derives from Feser's inference to the uniqueness of the absolutely simple being. Feser writes:

For suppose there were two or more noncomposite or utterly simple causes of things. Then there would have to be some *feature* the possession of which distinguishes one of them from the other. Noncomposite or simple cause A would differ from noncomposite or simple cause B insofar as A has feature F, which B lacks, and B has feature G, which A lacks. But in that case neither A nor B would really be simple or noncomposite after all. A would be a simple or noncomposite cause *plus* F, and B would be a simple or noncomposite cause *plus* G. F and G would be different *parts*, one of which each of these causes has and the other of which it lacks. (2017, pp. 74–75)

The central premise employed here seems to be that for there to be two or more x's, there would have to be some feature in virtue of which they are individuated. And since the possession of such a feature entails composition, there could not in principle be two or more absolutely simple beings.

There are at least three problems with this argument. First, Feser mistakenly assumes that a differentiating feature between absolutely simple causes A and B must be in terms of some feature that A (or B) has *in addition to* its simple nature. But this is simply untrue. Cause A need not be a simple cause *plus* F, and cause B need not be a simple cause *plus* G. Instead, A could be *identical* with its F-ness while B is *identical* with its G-ness. In this case, we have a differentiating feature between A and B—A is F, whereas B isn't F; and B is G, whereas A isn't G. Nevertheless, A and B are both absolutely simple—A *just is* its F-ness, pure and simple, and B *just is* its G-ness, pure and simple. Hence, composition doesn't follow from the possession of a differentiating feature. Feser's argument therefore fails.¹⁵

Second, Feser (and other trinitarian classical theists) must grant that *being trinitarian* is compatible with being absolutely simple. But then so is *being unitarian*, *being binitarian*, and so on, since there's no non-arbitrary reason to think that the *latter* entail composition while the *former* doesn't. But then there *are*, in principle, candidate differentiating features between absolutely simple things—one might be unitarian, another might be binitarian, a third might be trinitarian, and so on. (This is just a toy example of candidate differentiating features consistent with being absolutely simple. Other candidates abound. For instance, perhaps simple being A

¹⁵ F-ness and G-ness, moreover, may simply be fundamentally different qualitative features. (If Feser demands that F-ness and G-ness *themselves* have further differentiating features in virtue of which they're different, then his argument for uniqueness engenders a vicious infinite regress—for then *individuating features themselves* must be individuated by still further individuating features, and so on *ad infinitum*.)

is identical to its own impassibility (F-ness), whereas simple being B is identical to its diff-impassibility (G-ness), where a being is diff-impassible just in case its conscious state slightly differs in qualitative character from an impassible being's conscious state (which, as traditionally understood, is pure, infinite bliss/joy/happiness/delight). We all know that different types and tokens of joy, happiness, and delight have slightly different phenomenological feels, so there's nothing *in principle* absurd here.)

Third, the argument seems incompatible with Trinitarianism. For the exact same reasoning equally applies to there being two or more *divine persons*; the motivation for thinking that some individuating feature is needed to distinguish two or more *x*'s is a perfectly general one, applying to *any x*'s. The main reason favoring such a demand seems to be *explicability*: if there were no feature that one of x_1 or x_2 possesses that the other doesn't, then (so the reasoning goes) the fact that x_1 and x_2 are distinct is inexplicable. In other words, if x_1 and x_2 share all and only the same features, then the non-identity between x_1 and x_2 would be inexplicable. But this motivation seems entirely general, applying to any numerically distinct realities.

And if that's true, then it equally applies to divine persons. In order for there to be more than one divine person, there would have to be some feature that one had that the others lacked. But in that case—per Feser's own reasoning—the divine person would not be absolutely simple (and hence wouldn't even be *divine* after all).¹⁶

Philosopher W. Matthews Grant describes a Thomistic argument for uniqueness similar to Feser's. Grant writes that for Aquinas, "for any perfection P, it is not possible for there to be more than one subject that is essentially or subsistent P [i.e., identical to P *as such*]. For if subjects x and y were both identical to P," Grant continues, "then there would be nothing to constitute the one subject as distinct from the other. Thus, there could be only one subsistent P and, likewise, only one subsistent existence" (2019, p. 33). But applying this to divine persons, we can see that if both the Father and Son were identical to subsistent existence (P), then there would be nothing to constitute one of them as distinct from the other; there would, in other words, be nothing that one had which the other lacked. There would be nothing in virtue of which they are distinct or individuated. For if there *were* such an individuating principle, they would no longer be identical to subsistent existence but would instead be subsistent existence *plus* this difference. Thus, at least one of them isn't subsistent existence. But under classical theism, to be divine is to be subsistent existence—there is no distinction between God's essence and existence, for then God would be an essence-existence composite. Thus, since (i) at least one of the trinitarian persons isn't subsistent existence, but (ii) to be divine is to be subsistent

¹⁶The classical theist cannot avoid this objection by holding that each divine person isn't simple. For if each divine person isn't simple, then they're composite. But under classical theism (and the Neo-Platonic Proof), anything composite is a created, efficiently caused thing. But nothing divine could be a created, efficiently caused thing. Moreover, if the divine persons are composite, then there would be composite things in God. But then *God* couldn't be simple, since then there would be things *in* God that are *not* God. (For God is simple, and yet such things in God are not simple.)

existence, it follows that (iii) one of the trinitarian persons isn't divine. And this contradicts conciliar Trinitarianism.

Feser's inference to uniqueness plays an essential role in his argument. Without uniqueness, the argument faces a quantifier shift problem: merely from the fact that each chain of causes-of-unity has a first non-composite member, it doesn't follow that there is a single first member for *all* such chains. And without uniqueness in place, the inferences to various other divine attributes are undercut. For instance, Feser's inference to omnipotence presupposes that every (possible) composite entity must derive that entity's being from the causal activity of the *single* absolutely simple being, for only in that case is there a being from which all causal power derives.

Let's turn next to a second tension between the Neo-Platonic proof and Trinitarianism.

9.4.2 *NPCP, the Trinity, and the Incarnation*

Consider again NPCP's primary motivation: explicability. More specifically, the compresence of distinct elements together into a unified being demands some explanation—and because the explanation cannot be in terms of the being itself or one of its parts, an extrinsic cause (so the argument goes) is required.

But the exact same motivation for demanding an extrinsic cause unifying composite objects seems equally to apply to the multiplicity of divine persons united in a single Godhead. In other words, there seems to be no justification for NPCP that doesn't also justify demanding a cause of any trinitarian being. There seems to be no principled, non-arbitrary way to demand an extrinsic unifying cause in the case of things that are composites of (say) distinct attributes, or of essence and accident, or what have you but *not* in the case of things within which there is a multiplicity of distinct persons and/or processions.

Indeed, the fact of distinct x's within a being—i.e., a multiplicity or differentiation among numerically distinct realities—is precisely what requires an extrinsic cause in Plotinus's view. For Plotinus, the One's simplicity is utterly unqualified (Gavrilyuk 2019, p. 442). At Enn. 6.9.4 Plotinus says that “the One transcends all differentiations characteristic of being ... Plotinian simplicity excludes any multiplicity” (Gavrilyuk 2019, pp. 447–448). Anything apart from the One requires a unifying cause of its multiplicity, distinction, differentiation, and qualification. For Plotinus, then, a differentiation or multiplicity of distinct divine persons would demand a unifying cause.

Clearly the trinitarian God cannot have a unifying cause. But what, then, could explain the unity of the distinct persons in God? If the answer is that there's no explanation, then that seems to be a perfectly legitimate move for the detractor of the Neo-Platonic proof in explaining the most fundamental composite thing(s). If the answer is that it's simply metaphysically necessary that there be three distinct persons in one God, then that also seems to be a perfectly legitimate move for the detractor of the Neo-Platonic proof.

Perhaps the explanation is in terms of one of those very divine persons (the Father, say)? But once again this will undercut the Neo-Platonic proof. For this explanation amounts to the proposal that one of the $x_1, x_2, \dots x_n$ explains the unity of *those very x 's*. However, if this type of explanation is granted, then the unity of the fundamental composite object(s) might obtain in virtue of one (or more) of the *parts* of the fundamental composite object(s). If one of those very x 's can explain the unity of them all, then this should equally be the case when the ontological items in question (the x 's) are *parts* (again, in the very broad classical theistic understanding of parts). And hence it would not necessarily be the case that any composite object must be explained in terms of some extrinsic sustaining cause.

Perhaps there is some fourth thing—some fundamental aspect of God, say—that explains or accounts for their unity? But (i) this is plausibly incompatible with DDS (since this thing would be some positive ontological item within but distinct from God), and (ii) this reduces to the answer in the previous paragraph, since there's the further question of what explains the unity or connectedness or compresence of {Father, Son, Holy Spirit, this fourth fundamental aspect of God}. And any explanation in terms of the final element in the set amounts to citing *one of the very x 's* among $x_1, x_2, \dots x_n$ to account for their unity.

Fundamentally, then, our challenge for the trinitarian proponent of the Neo-Platonic proof is as follows. In explaining the unity (togetherness, compresence) of the numerically distinct divine persons in one being (the Godhead or G), the explanation is either (i) internal to G, (ii) external to G, (iii) G itself, or else (iv) there is no explanation. But if the explanation is internal to G, then something *within* a unified plurality can explain the unity of said plurality—in which case, the same could apply to the objects within NPCP's domain of quantification, thereby undermining NPCP's demand for an outside explanation of such objects. If the explanation is external to G, then there is something outside of or external to God which explains something about God, which is obviously incompatible with classical theism. If the explanation is G itself, then an object within which there is a unified plurality can explain the unity of said plurality without recourse to any external entity—in which case, the same could apply to the objects within NPCP's domain of quantification, thereby undermining NPCP's demand for an outside explanation of such objects. Finally, if there is no explanation, then once again the same could apply to the domain of NPCP, thereby undermining NPCP. Thus, either classical theism is false, or else NPCP (and hence the Neo-Platonic proof itself) is undermined.

In general, then, any proposal for explaining the unity of the trinitarian persons will undercut NPCP and *a fortiori* the Neo-Platonic proof. Trinitarianism is therefore inimical to the Neo-Platonic proof in yet another way.

Interestingly, the same problem arises with the incarnation. According to the doctrine of the incarnation, God the Son assumed a human nature, such that Christ

was truly God and truly man, possessing two natures (one divine, one human).¹⁷ There is thus *some* kind of unity, togetherness, or compresence of distinct items in the incarnation.¹⁸ But in explaining the unity (togetherness, conjoined-ness, compresence) of the distinct natures within one person (Christ or C), the explanation is either (i) internal to C, (ii) external to C, (iii) C itself, or else (iv) there is no explanation.

If the explanation is internal to C, then something *within* a unified plurality can explain the unity of said plurality—in which case, the same could apply to the objects within NPCP's domain of quantification, thereby undermining NPCP's demand for an outside explanation of such objects.

If the explanation is external to C—i.e., if the explanation is *not* in terms of either of the united natures—then the divine nature is not the explanation for C's unity. But this contradicts classical theism's commitment to universal divine causality (Grant 2019), according to which everything distinct from God is ultimately explained by God's causal activity. And since God is identical to the divine nature, it follows that there cannot be anything distinct from the divine nature that isn't ultimately causally explained by the divine nature. And, hence, C's unity must ultimately be explained by the divine nature. And so the proposal on which the explanation is external to C (which, again, is equivalent to the explanation *not* being in terms of either of the united natures) is incompatible with classical theism.

If the explanation is C itself, then a being in which there is a unified plurality can explain the unity of said plurality without recourse to anything external—in which case, the same could apply to the objects within NPCP's domain of quantification, thereby undermining NPCP's demand for an outside explanation of such objects.

¹⁷ We will focus exclusively on the orthodox, conciliar view that Christ had/has both a divine nature and a human nature united together (cf. Pawl 2020b, p. 23). It's worth noting that several theologians and church fathers have explicitly affirmed that Christ is a *composite* of two natures (Pawl 2016, pp. 207–208). (See also Hasker (2017) and the references therein on composite christologies.) Note that we do not claim that *Pawl himself* thinks that the human and divine natures are parts of Christ. For Pawl writes: “If I use ‘part’ language in my own voice in what follows, I intend it to be understood in this [previously articulated] figurative sense” (2016, p. 56). Though, Jc Beall—in our view rightly—notes that Pawl's favored account is “an implicitly compositional but officially non-mereological account” (2021, p. 125). One theologian espousing a composite Christology, at least according to Hill (2012), is Aquinas: “Thomas Aquinas is generally recognised as teaching a composite model of the incarnation. According to such models, the two natures of Christ (his human nature, or humanity, and his divine nature, or divinity) are concrete particulars, which should be conceived as proper parts of Christ” (p. 117). In fact, the Athanasian Creed (Denzinger 2002, para. 40) and the Council of Ephesus (Tanner 1990, p. 52) both employ an analogy for the incarnation: just as a person's soul indwells their body, the Word (i.e., the Son, the second person of the Trinity) similarly indwells the human nature. The language of “indwelling” strongly suggests—to our minds, at least—that the natures are *intrinsic* to the person of Christ (as a whole). Furthermore, they are each obviously distinct from Christ. They would thereby constitute *parts* of Christ (given the classical theistic understanding of parthood).

¹⁸ The councils are explicit that “a union of two natures took place,” that “one and the same Christ, Son, Lord, only-begotten [is] acknowledged in two natures,” and that “two different natures come together to form a unity, and from both arose one Christ, one Son” (Tanner 1990 pp. 70, 86, 41, respectively).

Finally, if there is no explanation, then once again the same could apply to the domain of NPCP, thereby undermining the NPCP. Thus, either classical theism is false, or else NPCP (and hence the Neo-Platonic proof itself) is undermined.¹⁹

We conclude, then, that the Neo-Platonic proof faces a serious challenge with respect to the incarnation.

9.5 Existential Inertia

In the midst of all the above problems for the Neo-Platonic proof, we shouldn't forget perhaps the biggest criticism of the proof: the existential inertia thesis. As we saw in Chaps 4, 5, 6, and 7—and as adapted to the present context—this thesis states that composites (or at least ultimate, fundamental composites) retain their unity in the absence of both external sustenance and destruction. As we've noted, a variety of different metaphysical accounts of existential inertia can likewise apply to the moment-by-moment existence and unity of composite objects. In light of Chaps 4, 5, 6, and 7, this thesis clearly presents just as much a challenge to the Neo-Platonic proof as it does to the Aristotelian proof.

9.6 Conclusion

The Neo-Platonic proof faces many problems. We argued first that premise three (i.e., NPCP) is both unjustified and dialectically ill-situated. We then argued that the Neo-Platonic proof fails to deliver the mindedness of the absolutely simple being and arguably militates *against* its mindedness. We then examined two tensions between Trinitarianism and the Neo-Platonic proof, after which we examined one final tension between the Neo-Platonic proof and the incarnation. Finally, the Neo-Platonic proof—like persistence arguments more generally—succumbs to the threat of existential inertia.

¹⁹ In fact, as Pawl points out, on one influential traditional view, “CHN [Christ's Human Nature] is created, and the hypostatic union is created, and in virtue of those two things existing, it is true that CHN is assumed into the Word If we have the person, the natures in which the person exists, and the ontic glue that holds them in union, we have an incarnation” (2016, p. 206). Aquinas (2022), for instance, held to such a view (see *Summa Theologiae* III, q16 a10 and q2 a7). And yet this view is, we maintain, straightforwardly inimical to the Neo-Platonic proof. For the “ontic glue” that “holds” the divine nature and human nature together is *itself* created, and the sole creator is God (i.e., the divine nature). And in that case, one of the *components* (the divine nature) of a composite (Christ) *can* explain the components' uniting to form the composite. Thus, a *component* of a composite can be the explanation for the *combination* of said composite's parts into a whole. And yet this is precisely what Feser needs to rule out as impossible in order to justify the need for an *extrinsic* or *outside* sustaining cause of the combination of wholes' parts.

There are, of course, other lines of response that we haven't explored in this chapter. One might, for instance, challenge the rather liberal constituent ontology underlying the argument and instead opt for a relational ontology.²⁰ Or one might simply reject the existence of metaphysical parts. Or one might hold that fundamental reality consists of one or more (non-classical-theistic) metaphysically simple module tropes that explain complex, non-fundamental things. And so on down the list of philosophically respectable responses.

We continue our assessment of classical theistic proofs in the next chapter on the Augustinian proof.

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²⁰ See van Inwagen (2014, esp. Chap. 10). For a recent criticism of constituent ontology, see Olson (2017).

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Chapter 10

The Augustinian Proof and Theistic Conceptualism



10.1 Introduction

Feser's remaining three proofs of the God of classical theism—the Augustinian, Thomistic, and Rationalist proofs—are the principal focus of this chapter and the next. The Augustinian proof reasons from realism with respect to abstract objects like universals, numbers, and propositions to the existence of a necessarily existent, purely actual intellect in which they reside as thoughts (or concepts). We tackle this proof in the present chapter, reserving the final two proofs for the subsequent chapter. We also examine reasons for and against theistic conceptualism in this chapter.

10.2 Augustinian Proof

There's a robust tradition of philosophers arguing for the reality of abstract objects. Feser argues that—at least in some sense—such abstract objects exist: “in some sense there are abstract objects such as universals, propositions, numbers and other mathematical objects, and possible worlds” (2017, p. 90). Feser proceeds to argue that “*some* version of realism about abstract objects like universals, propositions, numbers and other mathematical objects, and possible worlds must be correct” (2017, p. 97). He then argues that there are only three versions of realism: Platonic (according to which abstracta are necessarily existent, non-spatiotemporal, and independent of minds and physical objects), Aristotelian (according to which abstracta inhere in—immanently—substances and also exist as abstracted by finite intellects), and Scholastic (according to which abstracta inhere in substances, exist in finite intellects, *and* exist in an infinite, eternal divine intellect).

Next, Feser argues that Platonic and Aristotelian realism are false, in which case Scholastic realism is true. And this, in turn, entails the existence of a necessarily

existent, infinite intellect. He continues his reasoning as follows (with our numbering):

1. Abstract objects such as universals, propositions, numbers and other mathematical objects, and possible worlds are all logically related to one another in such a way that they form an interlocking system of ideas.
2. The reasons for concluding that at least some abstract objects exist in a necessarily existing intellect also entail that this interlocking system of ideas must exist in a necessarily existing intellect.
3. So, this interlocking system of ideas exists in at least one necessarily existing intellect.
4. A necessarily existing intellect would be purely actual.
5. There cannot be more than one thing that is purely actual.
6. So, there cannot be more than one necessarily existing intellect.
7. An intellect in which the interlocking system of ideas in question existed would be conceptually omniscient.
8. So, the one necessarily existing intellect is conceptually omniscient.
9. If this one necessarily existing intellect were not also omniscient in the stronger sense that it knows all contingent truths, then it would have unrealized potential and thus not be purely actual.
10. So, it is also omniscient in this stronger sense.
11. What is purely actual must also be omnipotent, fully good, immutable, immaterial, incorporeal, and eternal.
12. So, there is exactly one necessarily existing intellect, which is purely actual, omniscient, omnipotent, fully good, immutable, immaterial, incorporeal, and eternal.
13. But for there to be such a thing is just what it is for God to exist.
14. So, God exists. (2017, p. 110)

Here's how our criticism will proceed. We will not target Feser's case for realism with respect to abstracta; nor will we target his case against Aristotelian realism; nor, further, will we target his claim that Platonic, Aristotelian, and Scholastic realism exhaust the possible space of realist views.¹ Rather, we begin by arguing that premises (9), (7), and (11) are unmotivated. Then we argue that premise (4) is false, after which we argue that the Augustinian proof is actually *incompatible* with classical theism. We also argue that abstracta more generally pose serious

¹ This is not to imply that we agree with these claims or arguments. (Indeed, we find at least some of them deeply questionable, but that's neither here nor there for present purposes.) For a defense of an Aristotelian realist view (at least with respect to mathematics), see Franklin (2014, 2022). For a defense of anti-realist views and for criticism of (many of) the arguments Feser proffers on behalf of realism and against anti-realism, as well as criticism of the theistic conceptualism (broadly) along the lines Feser adopts, see Craig (2016, 2017). For recent defenses of anti-realism with respect to mathematical objects, see Builes (Forthcoming-a, b). For defenses of fictionalism, see Field (2016) and Leng (2010). For a recent defense of Platonism, see Berman (2020). For important treatments of the relation between God and abstracta, see Bøhn (2019) (and the references therein) as well as the contributions in Gould (2014a).

challenges to classical theism. Finally, we address Feser's arguments against Platonism and survey some problems afflicting Feser's theistic conceptualism. The result of our analysis is that the Augustinian proof not only fails to establish the God of classical theism but plausibly establishes the *falsity* of classical theism.

10.2.1 Premises (9), (7), and (11)

The problem with premise (9) is that its consequent simply doesn't follow from its antecedent. From the mere fact that the being in question *does not possess* knowledge of contingent truths, it doesn't follow that the being has unrealized potential. To claim otherwise presupposes that the being in question is *capable* of such knowledge in the first place; if a being cannot possibly have such knowledge, then clearly that being wouldn't even have the *potential* for such knowledge. But nowhere does Feser give any reason for thinking that the being in question is capable of having knowledge of contingent truths.² Consequently, Feser's inference to omniscience fails.

What's more, premise (7) is either false or unmotivated. Merely from the fact that ideas, concepts, and thoughts exist in S's intellect, nothing follows concerning whether S *knows* such ideas, concepts, and thoughts. As we pointed out in Chap. 8, the mere fact that propositions exist within an intellect as thoughts is entirely insufficient for knowledge, since, first, there also has to be some kind of affirmative doxastic attitude toward such propositions, and second, this attitude must be truth-tracking. The intellect *also* needs *un-Gettiered justification* for such attitudes—or, at least minimally, some externalist condition that differentiates mere true belief from knowledge. But neither of these is established from the mere fact that concepts, interlocking ideas, and thoughts exist in S's intellect.

Finally, Feser's justification for premise (11) is parasitic on the stage two inferences within the Aristotelian proof. But as we saw in Chap. 8, all (or nearly all) such inferences fail. Hence, Feser's Augustinian proof fails to establish the God of classical theism.

10.2.2 Premise (4)

The problem with premise (4)—the claim that a necessarily existing intellect would be purely actual—is that it's clearly false: we've seen numerous times throughout these chapters that there could easily be a non-purely actual, necessarily existent

²We should add that its truth is by no means evident or obvious. As many interpreters understand Aristotle's purely actual unmoved mover, such a being can only think and reflect on itself—it is just eternal self-thinking thought. On this understanding, such a being is not even *capable* of thinking about (and hence knowing) contingent truths.

being. That being's potencies must simply be potencies for *accidental* (rather than substantial) change. But perhaps Feser says something interesting by way of justification:

Consider that an intellect that existed of absolute necessity would have to be *purely actual*. For suppose that its existence presupposes the actualization of some potential. In that case its existence would be contingent on such an actualization, in which case it *wouldn't* exist of absolute necessity. (2017, p. 106)

But this is clearly mistaken for at least two reasons. First, Feser equivocates between "contingent" in the sense of "possibly absent from reality" (on the one hand) and "dependent upon another" (on the other). All Feser's argument has shown thus far is that there is a necessarily existent intellect in the sense of an intellect that is not possibly absent from reality. But nowhere has Feser demonstrated (in the context of this argument, that is) that this being is not *dependent*.³

Second—and more fundamentally—when one accepts the necessary (and, we add, *independent*) existence of a non-purely actual entity (like the God of neo-classical theism or panentheism), one does not say that the entity's "existence presupposes the actualization of some potential" in the sense that the entity requires the actualization of its potential for existence in order to exist at all. One is only saying that the entity in question has various potentials to *accidentally change* (or potentials to vary in non-essential properties across worlds, or potentials to act), none of which *require* actualization *in order* for the being in question to exist. Feser needs to argue that the mere fact of having potentials for accidental change, cross-world variance, and/or action entail that the being couldn't exist necessarily. But instead he has targeted the wildly different proposal that the necessary being has potencies in need of actualization in order to exist.

For these two reasons, Feser's proffered justification for premise (4) fails. And the fact that there could easily be (for all Feser has shown) a non-purely actual, necessarily existent, infinite intellect means that the Augustinian proof is unable to establish the God of *classical theism*. Thus, the Augustinian proof fails.

10.2.3 *Incompatibility with Classical Theism*

But we think an even stronger conclusion can be drawn. For the argument seems positively *incompatible* with classical theism. We saw in Chap. 1 that—according to classical theism—anything within God is numerically identical to God. But Feser's Augustinian proof explicitly commits to the reality of numerically distinct items

³And, again, the truth of this claim is by no means evident or obvious. Plotinus, for instance, held that there exists a Divine Mind or Nous in whom resides infinitely many "Platonic forms" (as it were) as intellectual items. But for Plotinus, this infinite complexity requires an extrinsic source, cause, or ground—the One. For Plotinus, then, the Divine Mind is a dependent being: it is dependent upon the absolutely simple One (which—as we saw in Chap. 9—transcends all complexity, distinction, multiplicity, plurality, differentiation, and qualification).

within the divine intellect like numbers, propositions, universals, and so on. But this violates the transitivity of numerical identity (such that if $x = y$ and $y = z$, $x = z$). For if God is identical to anything within God, and if the universal *humanity* and the number *nine* (say) are each within God (as Feser explicitly argues in his Augustinian proof), we can infer that (i) God is identical to the universal *humanity*, and (ii) God is identical to the number *nine*. Because identity is transitive, we can also infer from (i) and (ii) that the universal *humanity* is identical to the number *nine*. But this is clearly absurd. *Nine* has a square root (viz. the number *three*), but *humanity* obviously doesn't have a square root. Socrates exemplifies *humanity*, but Socrates doesn't exemplify the number *nine*.⁴

Thus, either classical theism is false or else there are no numerically distinct items within God or God's intellect. But if God or God's intellect does not contain numerically distinct items, then theistic conceptualism or Scholastic realism about abstracta is simply *false*. For this brand of realism—as Feser points out—is committed to the existence of distinct abstract items like propositions, sets, universals, logical and moral truths, and so on. Whether or not they exist in intellects, realism treats such abstract items as numerically distinct and existent entities.

We are not, therefore, merely foisting upon classical theism or the Augustinian proof a foreign Platonic account of abstracta. For even if abstracta exist in the divine intellect (and not independently in Plato's "third realm"), all we need is (i) that they *exist* (which is required if the view is to be *realist*, after all!), (ii) that there are at least two numerically distinct such abstracta (which, again, is a fundamental datum any realist view of abstracta needs to account for—and which, again, is explicitly affirmed in Feser's defense of the Augustinian proof), and (iii) that they are intrinsic to God (which is a core tenet of the theistic conceptualist or Scholastic realist view the Augustinian proof espouses). The Augustinian proof, then, is incompatible with classical theism.

Now, one might respond that abstracta exist within God only *conceptually* rather than *really*, just like how the classical theistic God's relation to the world exists conceptually rather than really. But when classical theists say that "whatever is in God is God," they're talking about real, extra-mental positive ontological items. What to make of this response?

At least in the context of Feser's Augustinian proof, we don't think this response is available to the classical theist. First, it's not quite clear what the distinction between conceptual existence and real existence is supposed to amount to. With respect to real relations, many classical theists would say that creatures stand in a real relation to God (such that creatures would have been different had they not been so related), but the only relations God bears to creatures are in our own minds—i.e.,

⁴Feser himself explicitly commits to the numerical distinctness of the various abstracta with which he is concerned. Consider, for instance: "[T]he series of numbers is infinite, but there are only finitely many material things and only finitely many ideas within any human mind or collection of human minds. Hence, the series of numbers cannot be dependent for its existence on either human minds or the material world" (2017, p. 91). Feser is here objecting to other views because they cannot accommodate the fact that *there are infinitely many numbers*.

in how we cognize, grasp, represent, conceive, and so on. But that can't be what we mean when it comes to abstracta. For then we merely have human conceptualism—a view that Feser has argued against—and a violation of the necessity of abstracta—a view that Feser has endorsed and defended.

Second, it's important to recognize that Feser seems to argue that the abstracta in question (propositions, mathematical objects, possible world, universals, etc.) *really exist*. Their status as denizens of reality is just as legitimate as that of people, particles, and platypuses. In fact, abstracta not only exist; Feser argues that abstracta *necessarily* exist. So abstracta certainly do not merely “conceptually exist” in the sense that there is nothing in God corresponding to abstracta except for what *we* cognize or represent God.

But perhaps we simply mean that abstracta exist as concepts in *God's* mind rather than in how *our* minds grasp or represent or cognize or conceive of God (or else God's mind). But then we are right back to the original problem: there is more than one such concept; such concepts are within God; and such concepts are distinct from God. If we say that there *isn't* more than one such concept, then—since, *ex hypothesi*, abstracta *just are* the concepts in question—there isn't more than one abstract object. And this contradicts not only Feser's own reasoning that there are infinitely many such abstracta, but also a fundamental datum any realist theory must account for (namely, there being more than one universal, or more than one shape, or more than one number, or more than one proposition, etc.).

Maybe the objector uses “conceptual existence” here to mean that (i) abstracta do not really exist in God's mind, (ii) God only has one concept (or, perhaps more accurately, one *act* of conception) with which God is identical, and (iii) there are nevertheless infinitely many *intentional objects* of that concept (or act of conception) that correspond to the infinitely many abstracta. But there are at least five problems with this.

First, the problem of the ontological status of necessary abstracta simply re-arises: for we can ask, “are there such things as these intentional objects?” If there are—that is, if they exist—then there exist things within God but distinct from God, *contra* DDS.⁵ But if there aren't such intentional objects, then we've merely adopted anti-realism about abstracta. Yet Feser was supposed to be giving us a *realist* theory.

This points to a fundamental dilemma afflicting the classical theistic conceptualist. Any plausible realist view must recognize that there's more than one abstract object. The property or universal *humanity* is not the property or universal *redness*; the property or universal *redness* is not the proposition $\langle 1 + 1 = 2 \rangle$; the proposition $\langle 1 + 1 = 2 \rangle$ is not the proposition $\langle \text{humans exist} \rangle$; the proposition $\langle \text{humans exist} \rangle$ is not a triangle; a triangle is not the number 47; and the number 47 is not the set containing the natural numbers. Moreover, abstract objects must be distinct from one another to play the different explanatory roles realists typically adduce. The

⁵If they exist outside (or are extrinsic or external to) God, then God is not free to refrain from creating anything apart from God (*contra* classical theism), since many such abstracta (even if they are mere intentional objects) exist *necessarily*.

universal *humanity* does *not* ground the objective resemblance among all and only four-sided things, whereas the universal *being four-sided* does; the set containing the natural numbers does *not* serve as the shared content for your belief and my belief that *Earth exists*; the number 47 does *not* make true the statement “2 is a prime number”; and so on. We take it, then, that if realism about abstract objects is true, then there is more than one abstract object. Now we pose the following dilemma for the theistic conceptualist (or theistic activist) who wants to preserve the traditional DDS: *are there abstract objects*? More accurately: where “the x’s” are whatever divine mental items or activities correspond to abstract objects, *are there the x’s*? If there aren’t, then we’ve simply abandoned the *realist* component of theistic conceptual realism. We have simply said *there are no abstracta*, or, rather, *there are no divine mental items/activities corresponding to abstracta*. To say as much is to deny realism. But if there *are* the x’s, then not everything *in God is God*. As we’ve seen, any plausible realist view must recognize that there’s more than one abstract object. Since theistic conceptualism locates such abstract objects within the divine mind, we can infer that there’s more than one thing intrinsic to God. And hence not everything *in God is God*—in which case, DDS is false. That, then, is the dilemma: either there *are* such abstracta—in which case, DDS is false—or there *aren’t*—in which case, we’ve simply abandoned realism.

Second, if abstracta are *merely* (divine) intentional objects, then what could distinguish abstracta from Santa, unicorns, pegasus, Harry Potter, or other fictions? For God thinks about fictions no less than God thinks about the abstract objects realists countenance. If abstracta are merely divine intentional objects, then there seems to be nothing differentiating them from *other* divine intentional objects like fictions. But any realist view should be able to distinguish universals like *redness* and numbers like *two* from fictions like unicorns and Santa Claus.

Third, the abstracta in question must *really exist* in order to serve the explanatory roles for which Feser employs them. Entities with mere conceptual existence like Santa Claus and unicorns surely cannot explain objective resemblance among mind-independent particulars, abstract reference and quantification in mathematics and logic and whatnot, the (necessary) truth of various mathematical, logical, and moral propositions, and so on. Consider: classical theists don’t want to say that the relations God bears to creatures explain why creatures exist. Why? Because such relations don’t really exist *so as to explain anything*! Instead, they say that *God* is what explains creatures.

Fourth, suppose we *grant* that distinct abstracta exist merely conceptually in God. Plausibly, though, *this still threatens DDS*. One of the principal motivations for DDS is as follows: if there *were* things intrinsic to but distinct from God—say, essential properties—then there would be non-God things without which God wouldn’t exist. God would in some sense be dependent on something that is *not* God, for God *would not exist* if not for those non-God things.⁶ What’s more, there

⁶See Vallicella (2019) for more on why and how this is one of the central motivations for DDS. (Note: we are not here *endorsing* said motivation or claiming that everything *does* depend on its essential features. We’re just noting classical theism’s traditional *commitment* to as much.)

would be necessarily existent, uncreated, non-God things. This threatens the classical theistic commitment to God's unique status as the sole necessary and uncreated reality. But now suppose we grant that there are non-God things (viz. abstracta) that *conceptually* exist in God. This is surely *just as problematic* as non-God things *non-conceptually* existing in God. Even if abstracta conceptually exist, there will still be things intrinsic to but distinct from God; there will still be non-God things—albeit conceptual ones—that are necessary and uncreated. What's more, these will be non-God things without which God would not exist. For if God's ideas and thoughts didn't exist, God would not be omniscient; and God cannot exist without being omniscient. Surely all *this* is problematic, and the appeal to conceptual existence doesn't avoid such concerns. *Conceptual existence* is still a kind of *existence*, and so to embrace a plurality of conceptually existent things in God is to embrace the existence of necessary and uncreated non-God things without which God would not exist. It is to embrace a dependent God.

Yet another traditionally central motivation for DDS is that if God had parts—i.e., if there were items intrinsic to but distinct from God—then something about God's character would be (at least partially) explained and hence (at least partially) dependent on some non-God thing. ("Character," here, signifies (roughly) *the way that something is*.) Anselm argues in his *Monologion*, for instance, that God is not distinct from God's justice or any of his other (intrinsic) features. For if God *were* distinct from God's justice or other features—i.e., if God were composed of several features—then God would be F "in virtue of his participation in" F-ness, in which case God would be F "through another and not through himself" (2007, ch. 16). But God's character is *not* dependent on another; rather, God is just, wise, etc. *through Godself*. Hence, God cannot be composed of various (intrinsic) features—instead, God *just is* God's justice, mercy, and so on. Anselm also argues that "every composite needs the things of which it is composed if it is to subsist, and it owes what it is to them, since whatever it is, it is through them" (2007, ch. 17). Hence, whatever is composite depends on something distinct from itself for its existence and character. But God is not dependent on something else. Hence, concludes Anselm, God must be absolutely simple.

Notice, though, that the same problems arise if we admit conceptually existent items intrinsic to but distinct from God. If God is distinct from the *x*'s—God's ideas, thoughts, and whatnot—then something about God's character would be (at least partially) explained and hence (at least partially) dependent on non-God things. God is omniscient, for instance, (partly) because God has the ideas and thoughts God has, and so God wouldn't be omniscient entirely through Godself but would instead be omniscient at least in part through the non-God *x*'s. More straightforwardly, God's being such that God *thinks such-and-such*, *has such-and-such ideas*, and so on will be owed at least in part to the non-God *x*'s. Once more, God's character here is at least partially owed to non-God things. Furthermore, God *needs* the non-God *x*'s if God is to subsist—God, after all, cannot exist bereft of God's ideas and thoughts and whatnot. By Anselm's reasoning—and, we add, the reasoning of

many other prominent thinkers in the classical theistic tradition—this problematically entails divine dependence on something distinct from God.⁷

Fifth, the response in question requires *ontological pluralism*, since conceptual existence amounts to a different way (or mode, or kind, or type, or whatever) of being/existence. But at least by our lights, ontological pluralism is deeply implausible, and we think it faces quite serious challenges.⁸

Overall, then, we think the appeal to conceptual (or intentional) existence will not help the classical theist here.

Now, perhaps one will object that Feser has already anticipated our problem. In response to an objection to omniscience, for instance, Feser writes:

Grim's objection also seems to assume a model of divine knowledge which would be rejected by those who hold (as, again, Scholastic realists do) that God is absolutely simple or noncomposite. In particular, it seems to assume that the truths God knows correspond to discrete ideas in the divine intellect, which together form a set. But given divine simplicity, what we describe in terms of such discrete ideas is really one and the same thing in God. There is in God something *analogous* to what we call, in the case of our own intellects, a grasp of the proposition that *all men are mortal*, something *analogous* to what we call a grasp of the proposition that *Socrates is a man*, and so forth. But these are different ways of describing what, in God, is really one and the same thing. (2017, p. 115)

But even if God's *grasp* of every distinct proposition is one and the same act in God, this leaves unanswered the fundamental question: *what of those distinct propositions themselves?* Even if the *act by which* God grasps distinct propositions is numerically one (and identical with God himself), the central question is unanswered. *Do propositions exist?* If they don't, then we've adopted anti-realism, *contra* what Feser argued in his Augustinian proof. If they do, then there are *many* such propositions—some are contingently true, others are contingently false; some are necessarily true, others are necessarily false. As Feser himself says,

So, all of the abstract objects about which we have been speaking must exist in this intellect. Note also that the number of these propositions and logical relationships is infinite. (This is obvious just from the fact that the number of mathematical propositions is infinite. For

⁷Boethius, for instance, offers similar arguments in *De Trinitate*. He argues that “each thing has its being from the things of which it is composed, that is, from its parts” (1918, Book II, p. 11). God, however, “is not grounded in any alien element”—that is, God does not receive God's being from anything else. Hence, “the Divine Substance... is its own [simple] essence” (*ibid*). Boethius also argues that God is *identical* to whatever God is—a classic formulation of DDS: “The categories we have mentioned... give to the thing to which they are applied the character which they express... For what a man is he owes to other things which are not man. But God is simply and entirely God, for He is nothing else than what He is, and therefore is, through simple existence, God” (1918, Book IV, p. 19). Boethius's argument here is familiar: whatever is composed of things distinct from itself is *dependent* on those things for being the way it is (i.e., for its character). But God is not dependent on another for God's character. Hence, God is absolutely simple. (Again, note that we have simply noted the *relationship* between traditional motivations for DDS and the present rejoinder based on conceptual existence. We are not *defending* the traditional motivations.)

⁸For a forceful exposition of one such problem, see Merricks (2019). And for an extension and application of Merricks's argument to classical theistic proofs, see Schmid (2021, Sect. 7.13).

example, for every number, there will be a true proposition and a false proposition about whether it is odd or even. And every other proposition will either be consistent or inconsistent with each of these propositions.) (2017, p. 105)

If the number of propositions is *infinite*, as Feser says, then there are numerically distinct propositions. And as Feser also says, abstracta (including propositions) exist in God's intellect. Hence, there are *x*'s intrinsic to God but distinct from God, in violation of DDS.

Things become all the more muddled when we consider what Feser writes elsewhere:

I have spoken of various concepts and propositions existing in the divine intellect, but they cannot exist there in exactly the *same* sense in which they exist in our intellects. For in our intellects they exist as distinct thoughts, and there cannot be any such distinctions in God consistent with his simplicity. (2017, p. 215)

Which is it? Are there *infinitely many* propositions or *just one* proposition? For Feser, "propositions... exist as thoughts in the divine intellect" (2017, pp. 209–210). In the above passage, Feser says there cannot be distinct thoughts in the divine mind.⁹ Given that (for Feser) propositions *just are* thoughts in the divine mind, it follows that there cannot be distinct propositions. There must be *just one* proposition. But, according to Feser, it's "obvious" that "the number of these propositions... is infinite" (2017, p. 105). Again: which is it?

If there's *more than one*, then—as Feser explicitly recognizes—there will be distinct thoughts in the divine intellect, contra DDS. But if there's just one, then theistic conceptualism is obviously false, since it is "obvious" (to use Feser's phrase) that there are infinitely many propositions. In fact, several of Feser's arguments for the existence of propositions *demand* the existence of more than one proposition. For instance, Feser (2017, pp. 94–95) argues from shared communicative content to the existence of propositions. But if all propositions were identical with one another (such that there was only one proposition), then there would be nothing to explain the difference in shared communicative content when we express to one another "the sky is blue" compared to "dogs exist." Moreover, if I express to you "the sky is blue," and you somehow come to think I expressed "the sky is purple," we would both still have one and the same proposition in mind. We would be bereft of resources to explain how you've genuinely misunderstood me. Indeed, per the argument from communication, we communicate the same thing to one another precisely in virtue of us entertaining one and the same proposition. Thus, if we *share* propositional content in the previous case, then you *wouldn't*, after all, have misunderstood me. But that's absurd. Hence, there's more than one proposition. There are distinct propositions. Given that propositions *just are* divine thoughts, it follows that there are distinct divine thoughts. Since "there cannot be any such distinctions in

⁹As Panchuck (2021) points out, this *is* indeed a commitment of DDS: "The doctrine of simplicity requires not only that there be no distinction between God and God's properties, but that there be no distinction between God and God's thoughts" (pp. 394–395).

God consistent with his simplicity” (Feser 2017, p. 215), it follows that DDS is false. Since classical theism entails DDS, it follows that classical theism is false.

Appealing to Aquinas’s corpus won’t help at this juncture. Michelle Panchuk nicely summarizes the relevant portions of Aquinas:

Thomas Aquinas addresses this issue in both the *Summa Contra Gentiles* (I, c. 51–2) and the *Summa Theologiae* (I.15.2). In *Summa Theologiae* he argues that the divine ideas must be many... Aquinas explains, however, that this is not at odds with the doctrine of simplicity because God does not have multiple *images* in God’s mind, which God forms on the basis of external things. That is, the ideas in the mind of God are not intelligible species *by which* God knows particular things (as an intelligible species actualizing God’s intellect), but are that which is understood. (Panchuk 2021, p. 395)

But whether or not God’s ideas are *imagistic* is irrelevant; what matters is their *existence* and *number*. So long as they exist, and so long as there’s more than one, it follows that not everything intrinsic to God is identical to God, contra DDS. Moreover, even if the ideas are “that which is understood,” this leaves unanswered the fundamental question: *do numerous such ideas exist?* If they do, then not everything intrinsic to God is identical to God. If they don’t, then we’ve embraced anti-realism.

Panchuk continues:

The ideas that serve as exemplar causes for finite particulars are identical to God’s divine self-knowledge. God can know Godself in two ways—as God is in Godself and as God can be participated in by finite creatures. Each species participates in the divine essence in its own unique way and measure. Thus, Thomas claims that the multiplicity is only from the perspective of the creation, while the principle or mode of knowledge is the simple divine nature, so knowledge of multiple things need not compromise God’s simplicity. (2021, p. 395)

If the ideas are identical to God’s self-knowledge, then since *God* is identical to God’s self-knowledge under DDS, it follows that God is identical to God’s ideas. But then there is only *one* such idea. (If there are multiple ideas but not multiple Gods, God cannot be identical to his ideas.) And in that case, we lose the fundamental realist datum that there are multiple abstracta—the proposition <dogs exist> is *not* identical to the universal *triangularity*, which is *not* identical to a non-actual possible world, which is *not* identical to the number 365, and so on.

Panchuk continues with Aquinas’s view:

In knowing Godself, God knows not only the divine nature, but also the many ways in which limited things can be like that nature. So, while the object of divine knowledge is multiple, the mode by which God knows it—i.e. through the simple divine nature—is simple. (Panchuk 2021, p. 395)

But again, this is irrelevant to our argument. What matters is the *ontological status of those objects of divine knowledge*. Even if the act or mode by which God knows is simple, this leaves unanswered the fundamental question concerning the *existence* and *number* of those objects of knowledge (objects like propositions, numbers, shapes, functions, sets, possible worlds, etc.). So long as they exist (which is required for one’s view to be *realist*), and so long as there’s more than one (which is a fundamental realist datum), the problem for DDS remains. Whether God knows

a multiplicity of things by means of a single, simple act is therefore entirely orthogonal to our argument.

To make matters worse for the classical theistic conceptualist, we can level still further arguments against classical theism based on the truth (or theoretical benefits accrued from adopting) *some* kind of realism with respect to abstract objects. For instance, we might employ Keller's (2018) Theistic Argument from Intentionality, on which propositions exist as thoughts in the divine intellect with representational and truth-bearing properties. This plausibly entails the existence of items intrinsic to but numerically distinct from God—in other words, *parts* (according to classical theism). Thus, if this argument succeeds, it counts against *classical theism* just as much as it does against naturalism. Or we could mount a theistic argument from (natural) numbers (as in Goldschmidt 2018) for the thesis that the divine intellect contains all numbers—this, too, would involve items intrinsic to but distinct from God. The classical theist, then—no less than the naturalist—has work to do in responding to natural theological arguments.

Menzel's (2018) Argument from Collections likewise serves as an argument against classical theism. Menzel's argument concerns the best explanation of certain contingent truths about the set-theoretic hierarchy. Menzel writes:

[This] contingency of set existence... entails a sort of vicious metaphysical capriciousness for the realist: it entails that there are possible worlds that are identical in every respect but for the fact that in one, inexplicably, there are sets built up from the urelements of the world that in the other, inexplicably, do not exist, despite the existence of those very same urelements. (2018, p. 48)

This metaphysical capriciousness arises from the fact that—according to the non-theistic set-theoretic realist—a “set exists *because* its members do, and no further explanation is needed” (*ibid.*, p. 48). Menzel continues:

But this explanation is utterly undercut if it's a radically contingent matter which sets exist given the urelements; if a set *s* exists in one world *w* but not another *w'* despite the existence of its members in *w'*, then its existence in *w* is metaphysically capricious; since *s* might not have existed even if its members had, the existence of its members does *not* after all explain its existence in *w*. (*Ibid.*, p. 48)

But the exact same problem of metaphysical capriciousness afflicts classical theism. Per Menzel's arguments throughout Menzel (2018), certain facts about the set-theoretic hierarchy (including which sets exist) is a radically contingent matter. But just as the non-theistic realist will have the exact same urelements across worlds somehow giving rise to set *s* in some of those worlds and not others, the classical theistic hypothesis for explaining such contingent differences in the set-theoretic hierarchy is no better: adding the classical theistic God into the picture—per DDS and divine immutability—simply adds yet another entity that remains utterly invariant and utterly identical across such worlds. The classical theistic God performs no distinctive mental act to collect together some such urelements into a set in one world while performing another mental act of *refraining* to so collect such urelements in another world, since everything about God remains entirely identical across all possible worlds *regardless* of whether or not *s* was so collected. Adding

the classical theistic God into the picture, then, is just like adding one further urelement to the original group of urelements, which does nothing to remove the mystery of *s*'s obtaining in some worlds while not in others.

Here's another, potential path for deriving a tension between classical theism and the theistic conceptualist understanding of universals in particular. One of the principal motivations for positing universals is to explain objective resemblance: if *x* is *F* and *y* is *F*—that is, if *x* and *y* agree or resemble in respect of being *F*—then, plausibly, (a) there exists an *F* that both *x* and *y* have in common, and (b) the reason that *x* and *y* resemble one another in being *F* is that (a) is true. But if (i) universals exist, (ii) universals, *qua* divine concepts (or something else in the divine mind), are *intrinsic* to God, and (iii) everything intrinsic to God is identical to God (as DDS would have it), then (vi) God is numerically identical to all universals (and hence all universals are identical to each other).

But (iv) is problematic for at least two reasons. First, (iv) means that things “exemplify” God—things “have” God in common among them. This seems absurd on its face, but it also seems bad news for classical theism, since it seems to make God (in some sense) a *part* of created things (per the constituent ontologist understanding of properties as metaphysical parts of things). Second, we exemplify (or instantiate, or have, or possess, or whatever) the universal *humanity* but *do not* exemplify the universal *felineity*. (If we *did* exemplify the latter, we would be cats. Yet—and we hope you take our word for this—we're *not*.) But then something is true of *humanity* that isn't true of *felineity*—in which case, they cannot be identical.

To get out of these worries, friends of DDS might deny that universals are divine concepts (or anything else in the divine mind). But then friends of DDS seem to fall back on either Platonism, Aristotelian/moderate realism, or some form of nominalism for their account of universals. And this is precisely what Feser, at least, was trying to avoid in his Augustinian proof, and it's something theistic conceptualists generally try to avoid. (A question also arises: if these views are perfectly acceptable for universals, why not adopt such views for other purported abstract objects?) Alternatively, the proponent of DDS might say that God is identical to the universals that exist in *God's* mind, but that there are also *different* universals that exist in ordinary particulars. But then (i) the universals in God's mind are explanatorily otiose, and (ii) the universals in ordinary particulars will be problematically dependent on ordinary particulars for their existence (at least by many realists' lights—including, we think, Feser's (2017, p. 90) lights as evinced in his “one over many” argument for universals).

Here's a final potential problem for the conjunction of classical theism with theistic conceptualism regarding propositions.¹⁰ The problem is that once we load God with an infinitude of propositions existing as thoughts within God's mind, divine beliefs (and other pro-attitudes towards propositions) are naturally understood as relations between God (*qua* intellect) and God's thoughts (which, again, on the view

¹⁰ We say “potential” because we're still exploring the problem's probative value. We won't explore it beyond this paragraph, but we note it in case it kickstarts future research.

in question, are identical to propositions). But then God's beliefs would be entirely intrinsic to God. This would be devastating for classical theism if true. For God's beliefs vary across worlds—the Earth is contingent, for instance, and so it follows from God's essential omniscience that in some worlds God believes that the Earth exists whereas in other worlds God believes that the Earth *doesn't* exist. But if such beliefs are intrinsic to God, then God intrinsically varies across worlds. Yet this is flatly inconsistent with classical theism—God cannot intrinsically vary in any way across worlds. (If God *did* vary in some way across worlds, then God would have an unrealized or unactualized *potential* to be intrinsically different than God *actually* is. God would also not be identical to everything in God.) This much is explicitly recognized by classical theists. And even if the classical theist resists this natural consequence of theistic conceptualism regarding propositions (viz. that divine beliefs are relations or connections between God and God's thoughts), avoiding this consequence for contingent divine pro-attitudes *other than* beliefs (e.g., God's contingent desire that the Israelites be delivered from slavery) becomes quite difficult. Such pro-attitudes are attitudes *towards* propositions (i.e., divine thoughts), and their bearer is God. We have difficulty seeing how one could avoid their being intrinsic to God. And yet DDS explicitly debar's contingency intrinsic to God.

So much, then, for classical theism's tension with theistic conceptualism. Onward we march to Feser's critical engagement with Platonism.

10.2.4 *Platonism*

The Augustinian proof crucially relies on the falsity of Platonism. As we use it, *Platonism* is the view that there are mind-independent, necessarily existent, non-spatiotemporal, causally effete abstract objects such as properties/universals, propositions, and mathematical objects.¹¹ But—as we hope to show—Feser has failed to justify this reliance. We can find about six problems Feser (2017, pp. 97–99) raises for Platonism. We will tackle each of these in turn in the following subsections. We will also tackle an additional problem for Platonism—what we call the “Brentano problem.”

¹¹ Thus, Platonism—as we define it—is *not* committed to any of the following theses: (i) any universal must instantiate itself; (ii) ordinary particulars *resemble* the universals they instantiate; (iii) ordinary particulars are imperfect images or copies of perfect universals; (iv) ordinary particulars are “less real” than universals; and (v) Plato's doctrine of recollection. Now, one might object that Feser (2017, ch. 3) is only concerned with a version of Platonism that affirms one or more of (i)–(v). But there are two problems with this objection. First, this is not how the syllogized proof characterizes Platonism. Feser's syllogized proof characterizes it as “the claim that abstract objects exist in a ‘third realm’ distinct from either the material world or any intellect” (*ibid.*, p. 109). This implies none of (i)–(v). Second, if the version of Platonism with which Feser is concerned affirms one or more of (i)–(v), then there is an obviously false premise in the proof: “There are three possible versions of realism: Platonic realism, Aristotelian realism, and Scholastic realism” (*ibid.*). For then there are *other* versions of realism—namely, versions of Platonism that don't affirm (i)–(v).

10.2.4.1 Epistemic Access

The first problem Feser raises is the epistemic access problem, also called the *Benacerraf problem* (Benacerraf 1973). Feser writes:

But what would it be for *triangularity*, in the abstract and all by itself—existing, not in an actual material triangle and not in any mind, but somehow as an object in its own right—to cause something?... Yet if it has no causal powers, and thus no effects on anything, then it would follow that it has no effects on *us*. And in that case, how could we possibly even *know* about it? (2017, p. 98)

The idea seems to be as follows. *Prima facie*, knowledge requires causal contact with the thing known. But causal contact with Platonic abstracta is impossible. Therefore, if there are Platonic abstracta, we cannot have knowledge thereof. (For an exploration of debates surrounding the Benacerraf problem, see Panza and Sereni 2013 and Clarke-Doane 2017.)

We don't pretend to have a knock-down solution to this problem. We *will* argue, though, that the Platonist's options are not as bleak as they would need to be for Feser's criticism to have teeth. For, plausibly, knowledge *doesn't* require causal contact with the object known. There seem to be lots of legitimate ways to acquire knowledge that don't require causal contact. Consider, for instance, inference to the best explanation in the context of Platonism. We certainly have causal contact with ordinary particulars. Moreover, we observe various facts about them—facts that call out for explanation. For instance, we observe objective resemblances or commonalities among them; we observe the success of science and the fact that certain natural classification schemes seem essential to such predictive, explanatory, and technological success; and so on.¹² Finally, we use standard explanatory reasoning (e.g., comparing theoretical virtues of the competing explanations) to infer that abstract objects best explain (or, as the case may be, provide the only explanation for) the relevant phenomena. None of this requires abstracta to causally impinge on us in some way. But yet this is surely a legitimate way to acquire knowledge thereof.¹³

Here's our second response. Plausibly, any intuition or argument supporting the thesis that knowledge requires causal connection will *equally support* the claim that knowledge requires only some *explanatory* connection with the object(s) of

¹² See Berman (2020) for an argument from the success, progress, and practice of science to the truth of Platonism. Also: note, again, that we are granting realism *arguendo* in this chapter.

¹³ What's more, it's difficult to see how S can claim that *knowledge requires causal contact* without self-defeat. Did *this very claim* (or its truth, or its obtaining, or whatever) causally impinge on S in some way? Did its truth bonk S on the head? Did it enter S's ears as soundwaves? Which neural networks did it stimulate? As these rhetorical questions are meant to illustrate, it seems implausible that the truth of the claim in question causally impacted S in some way. More plausibly, S *reasoned* to the claim based on various *other* things with which S *does* have causal contact. And yet this is precisely what the Platonist does with her Platonism. (Note, too, that epistemologists have largely abandoned the view that causal contact with the object of a belief is a necessary condition for that belief's being knowledge. Reasons for this are varied, but a familiar counter example is our knowledge of the future.)

knowledge. But in that case, the Platonist can easily accept that there is an *explanatory* connection between abstract objects and our belief therein. For instance, according to Berman (2020), abstracta (partly) explain various features of science itself; and our beliefs about science are themselves explained by such features (e.g., science's predictive, explanatory, and technological success); if we take explanation here to be transitive, it follows that abstracta (partly) explain our belief therein. Similar things can be said about, for instance, objective resemblance among particulars: abstracta explain objective resemblance or commonalities among particulars; such mundane facts about particulars explain our beliefs about those facts; so, by transitivity, abstracta (partly) explain our belief therein. Thus, plausibly, our belief in abstracta is, indeed, relevantly explanatorily connected to the fact that there are such abstracta. Moreover, those who mount the Benacerraf problem must likewise admit the legitimacy of transitivity in the context of epistemic access, since obviously not all our knowledge of ordinary particulars is *directly* caused by them.

10.2.4.2 Explanatory Impotence

Feser articulates a second problem for Platonism:

Furthermore, if [an abstract object like *triangularity*] has no effect on anything, then it has no effect on individual material objects, like the triangular billiard ball rack or dinner bell. But in that case, how could it be that which *explains* why those things fit the particular pattern they do? (2017, p. 98)

It's not clear how this argument is supposed to go, but perhaps it's something like:

1. If x has no effect on y, then x cannot explain facts about y.
2. Platonic abstracta have no effects on material objects.
3. One fact about material objects is that they fit certain patterns.
4. So, Platonic abstracta cannot explain why material objects fit the patterns they do. (1–3)

But not only is premise (1) unmotivated (and not only does Feser provide no justification thereof), it is also straightforwardly false. For there are all sorts of non-causal explanations—that is, cases where x explains y (or some fact about y) without having any causal effect on y. See the panoply of examples offered in Sect. 7.3.8.

Moreover, the explanatory arguments for Platonism *themselves* constitute responses to premise (1). For instance, suppose the Platonist appeals to some one thing shared in common among numerically distinct individuals in order to explain their objective resemblance with one another. There is no difficulty in seeing how this explains objective resemblance—things resemble because they literally share *one and the same thing in common* among themselves. And this is explanatorily illuminating, says the Platonist, regardless of whether that one thing shared in common has causal effects on the particulars in question.

Finally, the argument—if successful—only indicts versions of Platonism that accord (some) abstract objects the role of explaining why material objects fit the patterns they do. But not every version of Platonism affirms this, and not every

motivation for Platonism involves abstracta explaining features of material objects. (For instance, some adopt Platonism because abstracta explain the truth of subject-predicate discourse, or because quantification over abstract objects is indispensable to our best scientific theories, or because views which deny abstract objects cannot be stated without implicitly committing to their existence, or etc. Moreover, many Platonists deny the character-grounding view on which universals explain the patterns material objects exhibit; for such Platonists, it's the other way around—the patterns of material objects explain why such objects instantiate universals.)

Thus, we conclude that Feser's second problem is not a serious challenge for the Platonist.¹⁴ Onward we march, then, to the third problem.

10.2.4.3 Incoherence

Feser writes:

Platonic realism seems to regard a Form as something both universal—that is, instantiated in many things—and also existing as a particular, individual thing in its own right. This seems incoherent... (2017, p. 98)

Once again, it's not exactly clear what the problem is. Consider the case of one universal, *triangularity*. This is *a* universal—triangularity is a single entity. But that doesn't mean triangularity cannot be *universal* in the sense of multiply instantiable or exemplifiable. All this amounts to is that numerically distinct individuals can stand in an exemplification relation to triangularity. There is nothing contradictory or incoherent here. The universal is not both a single entity and *not* a single entity; there is one entity, triangularity, to which multiple distinct entities, i.e., particular triangles, stand in exemplification relations.

Second, suppose (contrary to what we've argued) that Feser *has* identified a problem. Importantly, though, the same problem afflicts *any* realist view of universals, including Feser's theistic conceptualism. Any realist view of (e.g.) the universal triangularity says that *there is such a thing as triangularity*—that is, that there exists an *x* such that *x* is identical to triangularity. To deny this is simply to adopt anti-realism about triangularity—to say, in other words, that there is no such thing. But in that case, we have *one thing*—triangularity—which is nevertheless in some respect *universal*. The “problem” of being both individual and universal will therefore afflict any realist view.

¹⁴A still further objection is that premise (1) seems self-undermining. For, plausibly, the truth of (1) has no causal effect on our beliefs and the formation thereof. (It's not as if its truth bonked someone on the head, or entered their eyes in a stream of photons, or stimulated their neural networks in some way.) By (1)'s own lights, it couldn't then *explain* why one believes it's true. But this violates a very plausible necessary condition on knowledge: namely, that the truth or fact known somehow enter into the explanation for why one believes it. (For a recent defense of this as an account of knowledge (and, *a fortiori*, a necessary condition thereof), see Bogardus and Perrin [Forthcoming](#).) And in that case, *by its own lights*, premise (1) can't be *known* to be true. Plausibly, then, premise (1) is self-undermining.

To make this concrete,¹⁵ consider Feser's own theistic conceptualism. Under such a view, universals are *ideas* in the divine intellect (2017, p. 108). But in that case, *Feser's own view* treats *triangularity* as something universal—that is, present in many things—and also existing as a particular, individual thing (namely, *an idea*).

This third problem, then, is no challenge at all to the Platonist.

10.2.4.4 Third Man Argument

Feser's fourth argument against Platonism is the so-called Third Man Argument:

Take the Form of Man, for example. Individual men are men only because they 'participate' in this Form, says the Platonic realist. But if the Form of Man is itself an individual object, doesn't that entail that there must be some other Form that *it* 'participates' in and by reference to which it counts as the Form of Man specifically? Don't we have to posit a Super-Form of Man over and above the Form of Man, in which both individual men and the Form of Man itself all 'participate'? Indeed, wouldn't we have to posit a Super-Super-Form of Man over and above that Super-Form, in which the Form of Man, the Super-Form, and individual men 'participate'? We seem led into infinite regress, and absurdity. (2017, p. 98)

This is not even remotely plausible. Something only instantiates or exemplifies (or "participates in") the universal *manhood* if that thing is an individual, particular, flesh-and-bones man. But the universal *manhood* is not a man. (For one thing, the former is non-spatiotemporal while the latter is spatiotemporal.) So, there is no need (nor *could* there be need) for some higher order universal, *manhood*₁, that both individual men and *manhood* exemplify. This would only be the case if there were some common or shared feature among individual men and the universal *manhood*. But there isn't much in common between them—the former are concrete, flesh-and-bones, bipedal, rational animals, whereas the latter is an abstract, non-causal, non-spatiotemporal universal or property. If they have something in common, whatever they have in common won't be anything relevant to some high order *manhood*, *manhood*₁.

More generally, Feser's argument here assumes that Platonism is committed to the *self-predication principle*—i.e., the principle that the Form of *F-ness* is *itself F*. But this assumption is false—Platonism is *not* committed to this principle. Indeed, the principle itself is obviously false. The universal *being purple* is not *itself purple*. The universal *being a substance* is not *itself a substance*. The universal *being honest* is not *itself honest*. And so on *ad nauseam*.

Moreover—assuming, again wrongly, that Feser has identified a legitimate problem—an exactly parallel problem faces Feser's theistic conceptualism. Consider the following parody. Take the divine idea of *manhood*. Individual men are men only because they share (or "participate in" or exemplify) this same *manhood*—or so

¹⁵ Pun intended.

says the theistic conceptualist.¹⁶ But if manhood is an individual divine idea, doesn't that entail that there must be some other divine idea that *manhood* participates in and by reference to which *manhood* counts as the idea of *manhood* specifically? Don't we have to posit a super-divine-idea of manhood over and above the divine idea of manhood, in which both individual men and the divine idea of manhood itself all participate? Indeed, wouldn't we have to posit a super-super-divine-idea of manhood over and above that super-divine-idea, in which the divine idea of manhood, the super-divine-idea, and individual men participate? We seem led into infinite regress, and absurdity.

Thus, Feser's fourth argument is *not* a problem for the Platonist, and even if it *were* a problem for the Platonist, it would equally pose a problem for theistic conceptualism.

10.2.4.5 Individuality and Incoherence

Here's Feser's fifth argument against Platonism:

Consider a universal like *animality*. Every individual animal is either rational (as human beings are) or nonrational (as all other animals are). But what about *animality* itself? Precisely because it is universal, it has to apply to both rational and non-rational animals. But it can't itself include both rationality and non-rationality, for these are contradictory. So, we have to say that inherently it entails neither rationality nor non-rationality. But no individual thing can be *neither* rational nor non-rational; any existing thing has to be one or the other. Hence, the universal *animality* cannot be said to exist as an individual thing in its own right; that is to say, it cannot properly be thought of as a Platonic Form. (2017, pp. 98–99)

This is deeply confused. In *one* sense, the universal *animality* entails only non-rationality. In *another* sense, *animality* entails neither rationality nor non-rationality. There is nothing absurd here.

Here is the perfectly respectable sense in which animality entails only non-rationality: the universal *itself* is not rational (i.e., capable of rational deliberation, thought, and activity), and hence the universal *itself* exemplifies *non-rationality*. (Or, if we want a sparser ontology, the universal *itself* *fails* to exemplify *rationality*.)

Here is the perfectly respectable sense in which animality entails *neither* rationality *nor* non-rationality: *that which exemplifies* animality does not *automatically* (else: *thereby*) exemplify rationality (in particular) or non-rationality (in particular). In other words, x's *exemplification* of the property of animality entails neither x's exemplification of the property rationality nor x's exemplification of the property non-rationality.

¹⁶Universals are often (though not always) posited (in part) to explain commonalities among individuals. It is therefore only because things have the relevant universal, *F-ness*, that they are all F. Hence, if universals are divine ideas, it follows that individual men are men only because they share (or have or participate in or exemplify or whatever) the divine idea of manhood.

There is nothing contradictory or absurd here, and *a fortiori* there is nothing absurd here that results from treating *animality* as a single entity.

Finally—and once again—an exactly parallel problem (assuming, as we shouldn't, that Feser *has* identified a problem) faces Feser's theistic conceptualism. Consider the following parody. As Feser himself argues, animality inherently entails neither rationality nor non-rationality. But no divine idea can be *neither* rational nor non-rational; whatever exists has to be one or the other. Hence, *animality* cannot be said to exist as an individual entity (which would have to be the case if animality were *a* divine idea). That is to say, animality cannot properly be thought of as an idea in the divine intellect.

Feser's fifth problem, then, shouldn't worry Platonists.

10.2.4.6 Immanence Problem

Here's Feser's sixth criticism of Platonism:

Platonic realism implies that the natures of the things of our experience are not *in the things themselves*, but are instead non-spatiotemporal. The nature of a tree, for example, is not to be looked for in the tree itself, but in the Form of Tree; the nature of a human being is not to be looked for in any human being but rather in the Form of Humanity; and so on. Now, if *treeness* is not to be found in a tree, nor *humanity* in a human being, then it is hard to see how what we call a tree really exists *as a tree* or what we call a human being really exists *as a human being*. (2017, p. 99)

Again, it's not clear what the argument is here, but we'll consider the claims made in turn. First, Feser says that natures are "not to be looked for" in the things whose natures they are. Perhaps this is simply a statement of the Platonic commitment to the non-spatiotemporality of abstracta—one will not find the universal spatiotemporally located where the universal's instances are. This is correct but uninteresting—it merely reiterates the Platonic view. Feser does go on to report that it is "hard for him to see" how this commitment allows us to say that ordinary particulars exist *as those particulars*. But it is hard for *us* to see what the problem is here. Platonists don't deny the reality of the ordinary particulars around us, and nor do they deny that such ordinary particulars have various intrinsic and extrinsic properties. Finally, they also don't (or needn't) deny that many such intrinsic properties are essential to those particulars. None of this is compromised by the mere fact that properties are

non-spatiotemporal. We confess, then, that we simply don't see any force behind Feser's sixth criticism.¹⁷

Feser claims that his objections to Platonism are "insuperable" (2017, p. 109). While many adjectives describe his objections, we hope to have shown that "insuperable" is certainly not among them.

10.2.4.7 Brentano Problem

Franz Brentano famously remarked that intentionality is the mark of the mental. *Intentionality* is (roughly speaking) *aboutness*. For example, your thought that humans exist is about humans. The proposition <dogs exist> is about dogs. Thoughts, propositions, and the like are thus intentional—they're *about* or *represent* something. The Brentano problem (our term) refers to the (purported) superiority of conceptualist—in this context, *theistic* conceptualist—accounts over Platonic accounts due to the intentionality exhibited by various abstract objects. Of concern for present purposes are *propositions*, which are (roughly) non-linguistic entities that are the primary bearers of truth-values and are expressed by declarative sentences.

Several authors (e.g., Anderson and Welty (2011, pp. 333–335) and Pruss and Rasmussen (2018, p. 139)) have argued that theistic conceptualism offers a better explanation of propositions' intentionality than Platonism. According to Anderson and Welty, propositions are identical to thoughts in the divine intellect. Identifying propositions with thoughts, they argue, is "the simplest and least arbitrary" account thereof (2011, p. 335). They continue:

Unless we have some good independent reason for insisting that propositions are *not* mental items, we should conclude (on the basis that they possess the distinctive mark of the mental) that propositions are indeed mental items, rather than positing a *sui generis* ontological category for them to occupy. One might go so far as to say that the principle of parsimony demands it. Propositions, then, are best construed as mental in nature. (*Ibid*)

Other suspiciously thought-like features of propositions are that "they bear entailment relations, they exemplify truth and falsehood, and they are arguably built of more basic intentional components" (Pruss and Rasmussen 2018, p. 139). These deep similarities between thoughts and propositions are "least surprising if propositions are thoughts or are essential components of thoughts" (*ibid*).

¹⁷ Feser offers what might be interpreted as a seventh criticism when he writes: "Indeed, the trees and human beings we see are said by Plato merely imperfectly to 'resemble' something else—namely, the Forms. So, what we call a tree seems at the end of the day to be no more genuinely treelike than a statue or mirror image of a tree is; what we call a human being seems no more genuinely human than a statue or mirror image of a human being is; and so forth. But this is absurd" (2017, p. 99). But this criticism does not attack the kind of Platonism with which we're concerned in this chapter. The particulars of our experience, according to this contemporary analytic version of Platonism, do not "resemble" abstract objects. They are not imperfect or "less real" images of them (whatever that means). So this criticism is neither here nor there for present purposes.

There seem to be two considerations here (purportedly) favoring theistic conceptualism over Platonism about propositions. First, identifying propositions with thoughts is *simpler* than the platonic account, since (i) we all (save eliminativists) already have thoughts in our ontology, (ii) non-mental but intrinsically intentional Platonic objects would be a *sui generis*, categorically different kind of thing from other things in our ontology, and (iii) theistic conceptualism preserves a categorically uniform account of intentional items (as uniformly mental), unlike the Platonic view which posits a *break* in this uniformity. Second, identifying propositions with thoughts gives us a good explanation of why and how propositions exhibit the various abovementioned, suspiciously-thought-like characteristics. We already know that thoughts are intentional—indeed, we are intimately familiar with this fact—and so if we can assimilate propositions to thoughts, we will have a neat explanation of their intentional features. By contrast, their intentionality seems to be primitive or brute on the Platonic account. How they represent is thus a mystery.

These are valuable challenges for Platonism. We will not pretend to resolve the Brentano problem in the space of this section. We will, however, provide five responses that—by our lights—significantly weaken its force.

First, parsimony does not plausibly support theistic conceptualism vis-à-vis Platonism. Platonism—by dint of its non-spatiotemporal abstracta—does have a *sui generis* fundamental kind of object in its ontology. But Platonism *doesn't* (or doesn't automatically) have a *sui generis* fundamental kind of object of a different sort—to wit, God—that Anderson and Welty's theistic conceptualism *does*. Anderson and Welty, just as much as the Platonist, posit a categorically different fundamental kind of thing: a non-spatiotemporal, supernatural, unlimited, supreme mind. Platonism makes no such posit. So, while theistic conceptualism might be *more* parsimonious than Platonism with respect to theistic conceptualism's commitment to intentional objects being uniformly mental, theistic conceptualism is nevertheless *less* parsimonious with respect to its commitment to a categorically different kind of concrete thing.

Furthermore, theistic conceptualism violates the uniformity of thoughts in several other ways. Consider that under Welty's (2006, pp. 192–225) view, God's thoughts—unlike every other thought we know—are not causally dependent on their thinker (God). By contrast, the Platonist can maintain that all thoughts are uniformly causally dependent on their thinkers. Furthermore, on theistic conceptualism, propositions are *numerically identical* to God's thoughts. This, too, introduces a new category of thoughts into our ontology—namely, thoughts that *just are* propositions—and it's a category that Platonism does without.

Alex Malpass makes a related point about parsimony in reference to the quoted passage from Anderson and Welty:

Roughly speaking, thoughts are private to those who think them (you cannot literally think my thoughts); but propositions are paradigmatically sharable (we can each think thoughts with the same propositional content). Frege contends that there must [therefore] be three basic categories of things; physical objects, thoughts, and propositions. Anderson and Welty effectively also recognise three types of things; physical objects, private thoughts and sharable thoughts. Therefore, it is not so obvious that parsimony considerations decisively

tell in favour of their alternative, which also requires the positing of a third category of thing (sharable thoughts). (Malpass [Forthcoming](#))

Parsimony considerations, then, do not seem to favor theistic conceptualism over Platonism. *At best*, parsimony considerations seem to be a wash between the theories.¹⁸

Second, arguably the representational character or intentionality of propositions isn't all that mysterious under some accounts of propositions. Take, for instance, the account developed in Rasmussen (2014, pp. 85–119). According to this account, propositions are non-spatial arrangements (combinations, organizations) of properties of relations. An example is particularly helpful for understanding the account:

<Tibbles is on the mat> contains a property that is necessarily unique to Tibbles and a property that is necessarily unique to the mat that Tibbles is on. I will refer to the first property as '[Tibbles]' and the second as '[the mat].'... I propose, then, that <Tibbles is on the mat> is a non-spatial arrangement (organization) of the properties [Tibbles] and [the mat]. Like every arrangement, <Tibbles is on the mat> consists of things tied together by one or more relations. In this case, the arrangement consists of [Tibbles] standing in a certain linking relation to [the mat] to form the proposition that Tibbles is on the mat. (*Ibid*, p. 107)

Rasmussen then provides the following analysis of aboutness:

[P]roposition *p* is *about* a thing *x* if and only if *p* contains a property that is necessarily unique to *x*.... [Thus], a proposition is about something by containing a property that is (essentially) unique to that thing. So, for example, <Tibbles is on the mat> is about Tibbles and a particular mat because the proposition contains [Tibbles] and [the mat], which are properties that are (necessarily) unique to Tibbles and a particular mat, respectively. (*Ibid*, p. 109)

This analysis, moreover, illuminates the aboutness of other intentional objects like (token) thoughts. If one *thinks* that Tibbles is on the mat, then one's thought is *itself* an arrangement composed of oneself "bearing a certain mental relation (such as *entertaining*) to <Tibbles is on the mat>" (*ibid*, p. 112). The proposition <Tibbles is on the mat> is thus *part* of one's thought—it is the thought's *content*. "Since [Tibbles] and [the mat] are parts of Tibbles is on the mat," continues Rasmussen, "by transitivity, they are also parts of my thought. And since these parts are themselves unique to Tibbles and the mat, respectively, it follows... that my thought that Tibbles is on the mat is about Tibbles and the mat" (*Ibid*). Rasmussen also proceeds to apply the account of intentionality to *concepts*.

¹⁸ *Objection*. God is a mind. We already have minds in our ontology. Thus, theistic conceptualists need *only two* realms: the material and the mental. Platonism postulates a *third realm*, distinct from both the material and the mental. Hence, Platonism is less parsimonious than theistic conceptualism. *Reply*. God is categorically different *not* in virtue merely of being a mind but in virtue of being an *unlimited, necessary, supernatural, non-spatiotemporal* mind. This is entirely categorically different from all the other minds we know of: they're uniformly limited, contingent, natural, and spatiotemporal (or at least temporal). It is *this fact*—rather than the mere fact that God is a mind—that saddles theistic conceptualism with a radically different, *sui generis* kind of thing. So the objection fails.

Our purpose here is not to *defend* this analysis of propositions and their aboutness. Instead, our purpose is to point out that there seem to be *prima facie* defensible Platonic views which do not render propositions' intentionality wholly mysterious and which unify the intentionality of propositions, thoughts, and concepts under a single, explanatorily powerful account.

This brings us to our third point: Platonic accounts need not (and arguably *should* not) posit a *break* in the uniformity of intentional items (e.g., as broken into two fundamentally different kinds of things, viz. propositions and thoughts). Recall one of the parsimony advantages theistic conceptualism was alleged to possess over Platonism: theistic conceptualism provides a categorically uniform account of intentional items as uniformly mental. But arguably the Platonist can likewise provide a categorically uniform account of intentional items: the components of propositions are the fundamental intentional items, propositions *derive* their intentionality therefrom, and *thoughts* in turn derive their intentionality from being appropriately related to propositions. This is precisely the account Rasmussen provided earlier: Rasmussen's account is simple and unifies intentional items together under one notion of aboutness predicated on individual-specific properties. While the Platonist, then, *does* have two different categories of intentional items (propositions and thoughts), the Platonist only needs one *fundamental* category of intentional items. And, arguably, for parsimony purposes, the *fundamental* categories in one's ontology are what matter—or, at least, what matter most.

Fourth, *pace* the Brentano problem, it's not clear that theistic conceptualism actually provides an illuminating explanation of the intentionality of propositions. Sure, God's thoughts are intentional. But why? What explains the intentionality of God's thoughts? In virtue of what are God's thoughts *about* things? Are God's thoughts simply *primitively* about things? If so, then the theistic conceptualist is in no better position than a Platonist who takes the intentionality of *propositions* to be primitive (and explains thoughts' intentionality in terms of *propositions'* intentionality). Is the intentionality of God's thoughts explained by the very *nature* of thoughts? Maybe so, but the same response seems equally available to a Platonist: the very *nature* of Platonic propositions is to be intentional. If theistic conceptualists want to claim that they have a better explanation of propositions' intentionality than the Platonist, then they owe us an account of the intentionality of God's thoughts.

This task might be particularly difficult for the *classical* theist given God's radical transcendence and thoroughgoing dissimilarity to our intellects. Do we even have a sufficient grasp of *what it is* for God—the pure act of being itself—to think something, or to have a thought? It's not clear that we do.

The theistic conceptualist might, of course, point to some *additional* feature(s) of divine thoughts, such as their being arrangements (combinations, organizations) of properties (or concepts) and relations, that explains their intentionality. But in that case, this *other* feature seems to account for the intentionality of divine thoughts. And in that case, (i) the *mere* fact of being a thought is not doing the "heavy lifting" with respect to explaining the intentionality of propositions, and (ii) the Platonist can then employ the same (or a relevantly similar) explanation for the intentionality of abstract, non-mental propositions. This, in turn, would collapse theistic

conceptualism's purported explanatory advantage over Platonism with respect to the intentionality of propositions.

Fifth and finally, even if theistic conceptualism were both simpler and more explanatory than Platonism with respect to the intentionality of propositions, it's a further question whether theistic conceptualism is superior to Platonism *all things considered*. And, we think, it's unclear whether this question should be answered in the affirmative, for there are reasonable considerations that tell against an affirmative answer. We do not make the bolder claim that the question *should* be answered in the *negative*; rather, we simply claim that whether the question should be answered in the *affirmative* is not clear. And yet an affirmative answer is precisely what is needed if we want to infer the superiority (*simpliciter*) of theistic conceptualism vis-à-vis Platonism. Note that we only have room for a *sketch* of some such considerations—we leave to the interested reader to follow our references for fuller explorations.

10.2.5 Theistic Conceptualism

The first problem is that many propositions are nasty, disturbing, insane, banal, trivial, morally and rationally reprehensible, and unholy (cf. Oppy (2014) and Craig (2016, ch. 5). If—as theistic conceptualists would have it—propositions are necessarily existent divine thoughts, then God is incessantly and necessarily thinking such horrendous thoughts. If you'll forgive us for the gruesome example: the proposition <God loves to torture babies merely to delight in hearing their screams> is one of God's thoughts. God unendingly thinks this. This is not only deeply counter-intuitive but also seems to compromise God's holiness and perfection.

How might the theistic conceptualist reply? Take banal and trivial thoughts. Arguably, it's a mark of *good cognition* that one thinks what is true, *even if* the truths in question are utterly trivial or banal. It is still a mark of one's cognitive perfection that one entertains and endorses such truths—or, at least, it's a mark of perfection provided that such thoughts don't "crowd out" (as it were) thoughts of more important matters. And this, of course, is clearly no problem for an infinite intellect.

Now consider outrageous, insane, and reprehensible falsehoods. Importantly, one can *entertain* outrageous and reprehensible falsehoods without *endorsing* them. Indeed, if God entertains and *rejects* them, then God is thinking true thoughts; and surely it's a mark of cognitive perfection to have such true beliefs. Moreover, merely entertaining an immoral or nasty thought is not sufficient for having a bad (or imperfect or unholy) character. Imagine a criminal psychologist who manages to get inside the head of a serial killer to see what sorts of things they're thinking (in order to anticipate their next move, say). This need not morally compromise the criminal psychologist. Finally, by entertaining the thoughts in question, God gets a full

picture of moral space (i.e., of moral facts, properties, and relations), and surely this is part of God's cognitive and moral perfection.¹⁹

These are respectable replies. In response, we simply offer some gentle push-backs. First, even if God doesn't *endorse* God's ungodly thoughts, what drives the problem is simply that God unceasingly ruminates over them—indeed, infinities upon infinities of them. If anything, God's not endorsing (i.e., opposing) them might *compound* the problem—God unceasingly thinks infinities upon infinities of malicious, reprehensible, and otherwise ungodly propositions *despite vehemently opposing them*.

Second, there may be relevant disanalogies between the criminal psychologist and God under theistic conceptualism. For criminal psychologists have to take periods away from thinking about (e.g.) horrific cases for the sake of their own psychological well-being, whereas God never gets any such break from thinking about horrific cases. The underlying problem is that wicked (horrendous, reprehensible, etc.) thoughts are *prima facie* inherently unhealthy and/or unholy to have on one's mind for *any* length of time. Alas, perhaps things are different for God. God, unlike the criminal psychologist, is not psychologically limited. Arguably, humans need such breaks *precisely because* humans have such a limited and frail psychological makeup. But God is neither limited nor frail in psychological makeup. So this second rejoinder may not work.

Third, suppose we change the criminal psychologist case so that the criminal psychologist *incessantly* thought the relevant reprehensible thoughts—even when not at their job, even when trying to sleep, even when buying groceries, and even when hugging their kids. There seems to be something clearly inappropriate and unholy here. Indeed, modify the story even further: suppose there is no serial killer. The criminal psychologist entertains all these horrific thoughts *regardless* of whether there's a serial killer in relation to whose future actions the thoughts would be useful. Indeed, suppose the criminal psychologist *knows* that there is no such serial killer, and yet *still* thinks about these things! *Something* here seems inappropriate or unholy. And yet this is exactly what theistic conceptualists would have us believe about God: even in a world in which God existed alone, God would still be incessantly thinking infinities upon infinities of these atrocious thoughts.

In light of all the preceding, we think it's fairly clear that the ungodly thoughts objection is far from decisive. Nevertheless, there *are* some intuitions undergirding it, and perhaps theistic conceptualism incurs at least *some* cost in violating such intuitions.

The second problem—raised forcefully in Craig (2016, ch. 5) and others—is that theistic conceptualism unduly restricts God's freedom and control. As Felipe Leon puts it, “in order to explain the objectivity, necessity, and infinity of abstract objects, theistic conceptualism entails that God *must* think all of his thoughts (and just *those* thoughts) and must think them constantly” (Rasmussen and Leon 2019, p. 164). Given the infinitude and necessity of universals and propositions, for instance, it

¹⁹Thanks to Kenny Boyce for bringing some of these replies to our attention.

simply follows that there are positive ontological items distinct from God that are not freely created by God (where free creation, as we use it, implies that God is free to create or refrain from creating). God therefore controls neither the existence nor the character of the abstract landscape. God's sovereignty is thus threatened.²⁰

The third problem is a *bootstrapping* worry.²¹ For, plausibly, God must *already* have (or *already* be identical to, in the case of DDS) various properties in order to be able to *engage* in thought, conception, or other intellectual activity in the first place. Surely, for instance, God must already have (or be identical with) the property of *being capable of thought*, or of *being an intellect*, or of *being powerful*, or of *being God*. But in that case, properties cannot be identical to (or otherwise grounded in) God's thoughts, conceptions, ideas, or other intellectual items or activities. For then some properties would be (ontologically) prior to themselves, which is absurd.²² The theistic conceptualist might say that only properties *not had by* (or *not identical to*) God are identical to or otherwise grounded in God's ideas, but then theistic conceptualism not only posits a radical break in the uniform ontological status of properties but also seems unmotivated. If *some* properties can exist without the help of God's ideas or intellectual activity, why not suppose *all* of them can?

The fourth and final problem we'll consider appeals to *counterpossible reasoning*. The problem, according to Felipe Leon, is that "the view gets the relevant counterpossibles wrong" (Rasmussen and Leon 2019, p. 163). Leon gives the following two examples: (i) if God didn't exist, the sum of 1 and 1 would still equal 2; (ii) if God didn't exist, abstract objects would still exist. Examples can, of course, be multiplied: if there were no minds, the proposition <there are no minds> would have been true (and hence would still have existed—assuming that nothing can have a property (e.g., properties of truth, aboutness, correspondence, etc.) unless that thing

²⁰ One might respond that while God lacks *leeway* freedom concerning the abstract landscape, he nevertheless enjoys *sourcehood* freedom concerning it; furthermore, one might add, the latter is all we need to preserve God's control, freedom, and sovereignty. This is a potentially promising move. One might worry, however, that God (*qua* agent) *isn't* the appropriate source of the abstract landscape; instead, the ultimate source or explanation (so the worry goes) is God's *nature* or perhaps *essential properties* (e.g., omniscience, or perfect rationality, or whatever) over which God has no control. (In order for God to exert control over anything, God would *already* have to exist and hence *already* have God's nature and essential properties (i.e., those properties without which God cannot exist).) We won't explore this dialectic further, however, since it extends well beyond our present purposes.

²¹ This worry has received more attention as applied to *theistic activism*. See, e.g., Davidson (1999), Bergmann and Brower (2006), Gould (2014b), and Menzel (2016). Craig (2016, ch. 5) and Leon (in Rasmussen and Leon 2019, p. 164) defend the objection as applied to theistic conceptualism.

²² Alternatively, the theistic conceptualist might reject the principle that if God is powerful, is an intellect, is capable of thought, etc., then he thereby has the properties of (or is identical to his properties of) *being powerful*, *being an intellect*, *being capable of thought*, and so on. But if things can be F without thereby having the property of being F (at least for monadic, so-called "natural" predicates—that is, at least setting aside complex, non-fundamental, gerrymandered predicates like "is grue," "is non-self-exemplifying," and so on), then why posit properties or universals at all? Such a rejoinder seems to collapse one of the principal motivations for thinking there are such things as properties. (Craig (2016, chs. 4 and 5) makes this point as well.)

exists); if God didn't exist, things would still exemplify properties (and hence there would still be properties); and so on. But why does theistic conceptualism get the relevant counterpossibles wrong?

Theistic conceptualism says that abstract objects of all kinds are identical to (or otherwise grounded in) God's ideas (thoughts, concepts, or other mental items or mental activities).²³ But in that case, if God didn't exist, then God's mental items wouldn't exist. And if God's mental items wouldn't exist, abstracta likewise wouldn't exist, since abstracta—for the theistic conceptualist—*just are* God's mental items. Hence, theistic conceptualism entails that each of the abovementioned counterpossibles is *false*: for instance, if God didn't exist, the sum of 1 and 1 would not still equal 2. There would be no such thing as the numbers 1 and 2, whose existence (we can assume) are required for $\langle 1 + 1 = 2 \rangle$ to be true, and nor would the proposition $\langle 1 + 1 = 2 \rangle$ even exist so as to bear the property of truth. Likewise for the rest of the abovementioned counterpossibles.

Now, on traditional Lewis-Stalnaker semantics, every counterpossible is vacuously true. Many philosophers working on modality and impossible worlds, however, have argued that lots of counterpossibles enjoy non-vacuous truth values. Indeed, the legitimacy and non-vacuity of counterpossible reasoning is often taken for granted in philosophy. For instance, it seems perfectly legitimate to reason along either of the following lines: (i) if theism were true, such-and-such would (or would likely, or might) follow; and (ii) if atheism were true, such-and-such would (or would likely, or might) follow. But one of these antecedents is not possible (assuming that theism or atheism is necessarily true if true at all). Nevertheless, it seems obvious that we can make non-vacuously true and false claims employing these antecedents. (For justification of the legitimacy (and indispensability) of counterpossible reasoning, see Tan 2019, Nolan 1997, Krakauer 2013, Jago 2013, Brogaard and Salerno 2007, and Zagzebski 1990.)

Assuming that counterpossibles can have non-vacuous truth values, we can then ask about the counterpossibles entailed by theistic conceptualism: are they non-vacuously true or false? The objection to theistic conceptualism under consideration says that they are *non-vacuously true*. It just seems obvious, according to objectors, that 1 and 1 would still make 2 if God didn't exist; that *non-God things* would still exemplify properties if God didn't exist; and so on. Since theistic conceptualism entails that these are false, and since it is *false* that these are false—they are, instead, non-vacuously true—it follows by modus tollens that theistic conceptualism is false. Or so the argument goes.

²³ Anderson and Welty (2011), at least, *identify* propositions with divine thoughts. (As does Feser—as we saw earlier, Feser says propositions exist as divine thoughts.) On standard theistic conceptualist accounts, moreover, properties/universals *just are* divine concepts, propositions *are* divine thoughts, possible worlds *are* maximal consistent (or compossible) sets of divine thoughts, and sets *are* divine collections (Plantinga (1980, 1993, 2007) and Welty (2014)). Feser (2017, p. 108) also identifies abstracta with divine mental items when he writes that Scholastic realism—the brand of theistic conceptualism Feser defends—“takes possible worlds and other abstract objects to exist as ideas in the intellect of an omniscient and omnipotent cause of the world.” Feser also says that universals “exist in [God] as concepts or ideas in an intellect” (2017, p. 209).

It's unclear whether this argument is convincing—or, at least, it's unclear whether the argument should convince theistic conceptualists. What undergirds the intuition that these counterpossibles are non-vacuously true? The intuition that abstract objects *necessarily* exist cannot do the job, and nor can the claim <necessarily, if there are non-God things, they exemplify properties>. For these necessary truths are inapplicable to *impossible* worlds, and they don't seem to illuminate the space of nearby impossible worlds in which God does not exist.

Perhaps, then, the idea is that in the *closest* impossible worlds in which God does not exist, it is still the case that abstracta exist, non-God things exemplify properties, 1 and 1 make 2, and the proposition <God doesn't exist> is true (and hence exists). But it's not clear whether such judgements can be used as arguments against theistic conceptualism. For, plausibly, when we consider the closest impossible world in which the antecedent of the counterpossible holds, it is what we *already believe* about the antecedent's relation to the consequent that dictates our judgment about the counterpossible's truth value. To see why this is plausible, consider the following claim:

(A) If God doesn't exist, then objective moral values don't exist.

Suppose we have two theists, one of whom thinks that God's nature grounds objective moral values—call them Bill—and the other of whom thinks that the flourishing and languishing conditions set by the intrinsic natures of *creatures themselves* grounds objective moral values—call them Thomas. Both Bill and Thomas regard (A) as a counterpossible (provided they think God necessarily exists). But we think it's reasonably clear why Bill will regard (A) as non-vacuously true while Thomas will regard (A) as false. Bill will regard the counterpossible as non-vacuously true *precisely because* Bill already believes that God is the ground of moral values, whereas Thomas will regard (A) as false *precisely because* Thomas already believes that the *intrinsic* character of creatures—not their extrinsic relation to God or God's nature—grounds their moral properties and values. This case illustrates why one's assessment of the truth value of counterpossibles depends on what one already believes about the antecedent's relation to the consequent.

But in that case, what motivates the judgments about the existence of abstracta in the closest impossible worlds in which God doesn't exist is precisely one's *prior belief* that God doesn't ground abstracta (or that God's mental items aren't identical to abstracta). In that case, though, one cannot *use* such abstracta-related counterpossible judgments to argue *against* theistic conceptualism on pain of begging the question.²⁴

But perhaps all is not lost for the counterpossible objection. Here are two points on its behalf in response to the above rejoinder.²⁵ First, one might worry that this sort of objection will generalize to virtually all philosophical claims. For many

²⁴ The general outline of this response is owed to Frederick Choo (who develops it in Choo (2021) in the context of divine command theory). Note, though, that we've considerably changed and developed it within a different context.

²⁵ Thanks to Felipe Leon for helpful discussion of these issues.

(arguably most) philosophical theses are necessarily true if true at all, and there are usually two or more philosophical views regarding a given philosophical thesis. If that's right, then virtually all we do in philosophy is consider impossible claims (i.e., reason about counterpossibles). And if that's right, then on the above response, we can't really do philosophy in a way that can properly persuade the other side in any dispute, since one won't accept the proposed counterpossibles unless one is already a believer of the relevant view.

Second, some counterpossibles just seem obviously non-vacuously true or obviously false *regardless* of one's prior beliefs about the relation between the antecedent and the consequent. Suppose, for instance, that Bill thinks that only God's commands give us reason to commit moral actions. Thomas argues that Bill's view entails—absurdly—that even if God had never issued any commands, the fact that one could prevent a trillion holocausts by (effortlessly) lifting one's finger doesn't give one *any* reason to (effortlessly) lift one's finger. Now, presumably, in worlds wherein holocausts occur, God—by God's very nature—would always command one to prevent holocausts if one could do this by the effortless lifting of a finger. So, Thomas's objection is a counterpossible objection. And, we think, it is obvious that Thomas's counterpossible—if Thomas is right that Bill's view entails the counterpossible's non-vacuous truth—is a serious problem for Bill's view. For the relevant counterpossible just seems obviously false. Thus, even if one antecedently accepting Bill's view—because of one's prior beliefs about the relation between the antecedent and the consequent—would ultimately have to judge the relevant counterpossible as non-vacuously *true*, one could (and arguably *should*) still appreciate that this poses a serious challenge to Bill's view. And this is true precisely because the relevant counterpossible strongly seems false *independent* of one's view about the relation between the antecedent and the consequent.

The first response, however, doesn't seem to hold water. There are whole hosts of legitimate ways to evaluate philosophical claims—including ones that are impossible—that don't rest on objections like "it gets the relevant counterpossibles wrong." We can, for instance, perform *reductio*s on views, teasing out internal incoherencies or tensions therein. We can also compare the competing philosophical views in terms of their theoretical virtues like explanatory breadth and depth, unification, simplicity, and so on. The earlier rejoinder does not reject counterpossible reasoning wholesale; the rejoinder simply argues for the illegitimacy of *one* kind of counterpossible objection—namely, counterpossible objections undergirded by a prior rejection of the view being criticized.

We do, though, find the second response quite convincing. One's evaluation of the relevant counterpossible need not be undergirded by a prior rejection of the view being criticized. Even one who *accepts* Bill's view, for instance, can see the patent absurdity of the relevant counterpossible. In general, then, one can simply evaluate the merits of counterpossibles as independently plausible or implausible in their own right. This might involve a process of *reflective equilibrium* wherein one balances one's intuitive judgments with one's prior commitments about the relationship between the antecedent and consequent. But one's judgment about the relevant

counterpossible is not *solely* based on a prior rejection of the view being criticized, and hence the charge of question-begging seems misguided.²⁶

The fourth problem, then, should at least *potentially* worry theistic conceptualists. *Whether* and *how much* it should worry someone depends on how strong their intuitions are concerning the falsehood of the relevant counterpossibles. In any case, these four problems for theistic conceptualism jointly push us to our modest conclusion that it's not clear whether theistic conceptualism is superior to Platonism *all things considered*.²⁷

10.3 Conclusion

Based on Sects. 10.2.1, 10.2.2, 10.2.3, 10.2.4, and 10.2.5, we conclude that the Augustinian proof fails. First, premise (9) is false. Second, premise (7) is false. Third, premise (11) is parasitic on the failed stage two inferences considered in Chap. 8. Fourth, premise (4) is false. Fifth, the argument is incompatible with classical theism, since the argument entails items numerically distinct from but intrinsic to God. Sixth, abstracta arguably furnish arguments *against* classical theism, as we saw when we considered the arguments of Keller, Goldschmidt, and Menzel. Seventh, all of Feser's arguments against Platonism fail. Such arguments, though, would need to succeed in order to justify the Augustinian proof's reliance on the falsity of Platonism. Moreover, the Brentano problem likewise fails as an argument against Platonism. Eighth, theistic conceptualism faces several challenges. We identified at least four, none of which Feser addresses.

We emphasize that there are many plausible dialectical avenues we have not taken in response to the Augustinian proof. There are, for instance, various defenses in the literature against the criticisms Feser levels towards anti-realism, Aristotelian or moderate realism, and so on. Suffice it to note for now that—even disregarding these other dialectical avenues—the Augustinian proof fails.

²⁶One objection we'll note (but which we haven't the space to explore) is that *Platonism*, no less than theistic conceptualism, gets the relevant counterpossibles wrong. For instance, had the Platonic abstract object *1* not existed, $1 + 1$ would still equal 2; had the abstract proposition <everything is self-identical> not existed, it still would have been true that everything is self-identical; and so on.

²⁷Here's a fifth potential problem we won't pursue beyond this footnote. It seems that theistic conceptualism is incapable of accounting for universals/properties. For God's mental items (and acts) like concepts and thoughts are uniformly intentional—they are *about* (directed toward, referred to) something. Thoughts are intentional; the act of thinking is intentional; concepts/ideas are intentional; acts of conception are intentional; and so on. But one might think that properties (or, at least, some subset thereof) are *not* intentional. For example, one might think the property *redness* isn't about anything. But then universals/properties cannot be divine mental items (or acts), contra theistic conceptualism.

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Chapter 11

The Thomistic and Rationalist Proofs



11.1 Introduction

Thus far, we've argued that all of Feser's first three proofs of the classical theistic God fail. In this chapter, we argue that Feser's fourth and fifth proofs succumb to the same fate. The Thomistic proof argues for the existence of a being in which essence and existence are numerically identical and is taken up in Sect. 11.2. In Sect. 11.3, we take up the Rationalist proof for the existence of a necessarily existent, purely actual source of contingency.

11.2 Thomistic Proof

The Thomistic proof reasons from the real distinction between essence and existence in non-God objects to the existence of God understood as Being Itself—that in which essence and existence are identical. For Feser, *essence* refers to *what* a thing is—its nature—whereas *existence* refers to the fact *that* a thing is—the fundamental actuality without which the thing would not *be*.¹

Because stage two of this argument relies on the inferences in stage two of the Aristotelian proof, and because we've already seen that such inferences fail, stage two of this argument likewise fails. For all the argument shows, that in which essence and existence are identical may be an impersonal foundational reality without any moral, intellectual, or volitional attributes. (Indeed, by our lights, this is the

¹Feser (2017, p. 117). Note that we are *not* here concerned with Aquinas's *De Ente* argument. (For our criticisms of the *De Ente* argument, see Sect. 7.3.8.) Rather, we are solely concerned with Feser's *Thomistic proof*, which is related to but nevertheless distinct from the *De Ente* argument. Note, though, that our criticisms from Sect. 7.3.8 are relevant to the Thomistic proof. We won't reiterate them here for purposes of space.

most plausible interpretation of such a reality.) But let's set this worry aside, since our principal concern in this section is stage one of the argument. Our main criticisms derive from (i) the Existential Inertia Thesis (EIT) explored in Chaps. 4, 5, 6, and 7, (ii) the argument's dialectically ill-situated demand for a sustaining cause of a necessarily existent, foundational being in which essence and existence are distinct (e.g., the neo-classical theistic God), and (iii) the argument's reliance on ontological pluralism and other questionable metaphysical views.

Before turning to our critical appraisal, let's get clear on the premise-by-premise formulation of stage one (our numbering, with omissions of the premises arguing for the real distinction between essence and existence among the things of our experience):

1. [F]or each of the things we know from experience, the distinction between its essence and its existence is a *real* distinction.
2. For anything the essence of which is really distinct from its existence, its existence must be imparted to it either by itself or by some cause distinct from it.
3. But if it imparted existence to itself, it would be the cause of itself.
4. Nothing can be the cause of itself.
5. So, it cannot impart existence to itself.
6. So, for anything the essence of which is really distinct from its existence, its existence must be imparted to it by some cause distinct from it.
7. Since its essence and existence remain really distinct at every moment at which it exists, including here and now, its existence must be imparted to it by some cause distinct from it at every moment at which it exists, including here and now.
8. So, for each of the things we know from experience, its existence must be imparted to it by some cause distinct from it at every moment at which it exists, including here and now.
9. Either this cause is itself something the essence of which is distinct from its existence, or it is something whose essence and existence are identical, something that *just is* subsistent existence itself.
10. If this cause is something the essence of which is distinct from its existence, then its own existence too must be imparted to it by some cause distinct from it at every moment at which it exists, including here and now.
11. The causal series this would generate would be a hierarchical one, which cannot regress infinitely but must have a first member.
12. This first member could only be something whose essence and existence are identical, something that *just is* subsistent existence itself.
13. So, either directly or indirectly, each of the things we know from experience has its existence imparted to it at every moment at which it exists, including here and now, by some cause whose essence and existence are identical, something that *just is* subsistent existence itself. (Feser 2017, pp. 129–130)

The argumentative pattern is a familiar one: things in which essence and existence are distinct require sustaining efficient causes of their existence; such hierarchical

or per se chains of causal dependence cannot be infinite; hence, there exists something in which essence and existence are identical.²

What to make of this argument? As formalized above, premise (7) denies EIT which, you will recall, states (roughly) that temporal concrete objects (or some subset thereof) persist in existence in the absence of external sustenance and destruction. Because temporal objects are (we can suppose *arguendo*) things in which essence and existence are distinct, the truth (or rational defensibility) of EIT would (or does) undermine the Thomistic proof. And as we've seen, the arguments thus far articulated against EIT in the literature can be met, and there are also many *motivations* for holding the inertialist view.

We offer EIT here simply as an undercutting defeater for the Thomistic proof (and premise (7) in particular). That is, its aim is to illustrate that the reasons offered on behalf of the demand for a sustaining efficient cause do not adequately justify such a demand and do not adequately rule out EIT. What, then, are such reasons in the context of premise (7)?

The argument Feser (2017, pp. 124–125) provides runs as follows. Existence cannot *follow* or *flow from* the essence of an essence-existence composite; nor can an essence-existence composite impart existence to itself (for that would be self-causation). There must, then, exist some extrinsic cause that imparts existence to an essence-existence composite.

Feser recognizes, however, that this reasoning is incomplete. For even if successful, the reasoning does not entail the need for *concurrent*, existential causal sustenance of essence-existence composites—for all the reasoning shows, the object may very well need to be *brought into* existence (thereby effecting composition between essence and existence, if we must speak this way). Thereafter, however, the union of the two may very well be inertial.

To solve this, Feser argues that the line of reasoning “applies to a thing not only *before* it comes into being and *as* it comes into being but *always*, even *after* it has come into being” (2017, p. 126). He continues:

²Indeed, the familiarity of the argumentative pattern among Feser's four causal proofs (i.e., all except the Augustinian proof) has led Logan Paul Gage to argue that Feser's book “contains two arguments for God rather than five. In fact, he seems to hint at this himself (159). All but the Augustinian proof take this existential turn and argue to a necessary, purely actual being that actualizes contingent things' potential to exist. This is a worry I've long had about Feser's interpretation of Aquinas's Five Ways: on his existential interpretation they seem to collapse down to contingency arguments” (2019). This certainly seems to at least *approximate* the truth. Stage one of Feser's causal proofs is basically: (i) anything changeable, contingent, or composite requires an efficient sustaining cause; (ii) chains of efficient sustaining causes cannot be infinite (or circular); (iii) so, there is at least one unchangeable, necessary, simple first cause. This deep similarity renders them all susceptible to similar criticisms—e.g., (i) EIT and (ii) the (epistemic) possibility of a necessarily existent, uncaused-but-changeable-and-composite ultimate reality (or collection of such realities) upon which other things depend (as in neo-classical theism and several respectable non-theistic views).

Fido's existence is distinct from Fido's essence, does not follow from Fido's essence, and cannot be imparted by Fido to his essence. All of these things are true not only before Fido exists and at the time he is conceived, but also after he comes into being, and indeed at every moment he is alive. Fido's existence *here and now* is distinct from his essence and does not follow from his essence. So, *here and now* there must be some cause that adds or imparts existence to that essence. Otherwise Fido would not exist *here and now* any more than he did before he was conceived. He would 'blink out' of existence or be annihilated. (2017, p. 126)

The main problem with this argument is that it simply doesn't justify the requirement of a concurrent sustaining cause. For *even if* S's existence at *t* is distinct from S's essence at *t*, such that neither S at *t* nor S's essence at *t* could account for or explain S's existence at *t*, it simply doesn't follow that the *only* remaining option for explaining S's existence at *t* is a concurrently operative sustaining cause which imparts existence to S at *t*. But this is precisely what Feser needs for his argument to succeed.

Moreover, we have seen that there are whole swathes of *alternative explanations* of S's existence at *t* that make no reference to efficient sustaining causation. For instance, S's existence at *t* could easily be explained (for all Feser's argument shows) by the state and existence of S immediately prior to *t* in conjunction with there being no sufficiently destructive factors operative (à la some transtemporal accounts), or by the very nature of persistent existence as the maintenance or non-disruption of a state of unchanging actuality (à la some no-change accounts), or by the metaphysical necessity of persistence in the absence of sufficient destructive factors (à la some propositional necessity accounts), and so on. (Again, see Chap. 6 for more on such explanations.) Feser has given *no* reason to rule out *any* of these explanations. We conclude, then, that EIT undercuts Feser's justification for the requirement of a sustaining cause of essence-existence composites. Premise (7), then, is simply unmotivated. (We should add, also, that if the considerations in support of EIT have merit, then EIT not only *undercuts* but *rebut*s the Thomistic proof.)

We think an analogy with mechanical or spatial inertia is helpful at this point. Consider: spatial location is almost always (perhaps always) numerically distinct from the essence of the thing occupying said location. Return once more to our illustration of the cup in a Newtonian, pre-relativistic framework from Sect. 7.3.3.4. The cup is distinct from a particular spatial location, since the cup can exist *without* being located at such a position. (This shows, moreover, that such a spatial location is not even essential to the cup.) But the mere fact that the cup's particular spatial location is distinct from its essence (and not even included in its essence as one of its essential properties) *doesn't entail* that the cup's being in this particular spatial location (at any moment at which the cup is *in* such a location) requires some kind of continuously concurrent external causal "keeper" or "sustainer" of the cup's being in said location. Indeed, under the Newtonian framework, the opposite is the case: no such continuously concurrent sustenance is required in order for the cup to simply retain its spatial position. And if this is true of spatial location—which, again, is distinct from the essence of objects (and isn't even one among their essential properties)—why couldn't it equally be true of *existence*? The onus is on Feser to show that it *couldn't*, and yet he has done no such thing.

Another problem (deriving once again from non-classical theistic models of God) for Feser's Thomistic proof can be generated by considering the following question: why would a necessarily existent perfect being whose essence is numerically distinct from its existence requires concurrent causal sustenance in order to exist? The answer is not at all clear. Why can't a being's existence be explained, instead, in terms of the *metaphysical necessity* of the being's existence—i.e., the fact that it is metaphysically impossible for the being to fail to exist? In this case, we might suppose that the being's essence either includes, or necessarily entails, or perhaps is necessarily “conjoined with” the being's existence (if we must grant Feser his metaphysics of essence and existence); or perhaps necessary existence is one among its essential properties; or what have you. However we cash this out, why is this a faulty explanation? By our lights, we see no reason why a necessarily existent, perfect, foundational being (the neo-classical God, say) would require an external cause simply because the being's essence is not numerically identical with the being's existence.³ Indeed, as we explained in Chaps. 7 and 8, we see positive reasons to think that such a being *couldn't* have such an external cause.

Before concluding our assessment of the Thomistic proof, four final considerations are worth addressing. The first is Feser's ([Forthcoming](#)) defense of one of Aquinas's arguments for the uniqueness of a God in whom essence and existence are identical. Feser writes:

The first argument Aquinas gives in the *Summa Theologiae* for divine unity appeals to divine simplicity. Because God's essence and existence are identical—because he just *is* his existence—his essence is not something that can be shared with anything else, so that in the nature of the case there cannot be more than one God. (*Ibid*)

There are at least two problems with this argument for uniqueness. For starters, merely from the fact that God's essence is not something that can be shared with anything else, it doesn't follow that there cannot be more than one God. For all the argument shows, it could be that there are two Gods, *each of which is identical to its own unshared essence and existence*. We need not suppose that they *share one and the same essence*; they may simply have *different divine essences*. Perhaps one of them has a divine essence included in which is the essential attribute of *being trinitarian*, whereas the other has a divine essence included in which is the essential attribute of *being unitarian*. In this case, each God is identical to its own essence (and, we can suppose, its own existence), and yet there is no single essence that all the Gods share in common. Now, you might object that for each of them to be *Gods*, they must at least minimally share *some* essential attribute, such as *divinity* or *omnipotence*. But why? Why not instead suppose that they each simply have their own (e.g.) *trope* of *divinity* or *omnipotence*? Or why not take a nominalist approach to Gods, such that there are no such things as divine properties that any such God

³There is, of course, the further question of what explains the being's metaphysical necessity. But (i) this question is separate from the demand for an explanation of the mere *existence* of the entity in question, and (ii) we have already canvassed several answers to this question in Chap. 6. Note also that similar points as those made in the main text apply to *non-theistic* views which posit one or more necessary foundational concrete things.

possesses (and, *a fortiori*, no properties they share in common)? Or perhaps each God only possesses omniscience, omnipotence, divinity, etc. *analogously* to the rest, such that we block the need for features that they share in common but nevertheless preserve a *kind* of common (albeit merely analogous) predication among them. To be sure, the *Thomist* may not accept any of these possibilities; but that's utterly irrelevant. What matters is whether the Thomist's argument for uniqueness has given us any reason to *rule this out*, i.e., to think it's *impossible*.

Second, it's not at all clear how a *trinitarian* could run this sort of argument. For the argument (and its various inferential steps) seems structurally identical to the following argument, and any reason favoring the original argument seems equally to favor the following parody. Thus, if one accepts the original argument, one should likewise accept the parody argument:

Because the Father's essence and existence are identical—because the Father just *is* his existence—his essence is not something that can be shared with anything else. So, the Father cannot share his essence with the Son. But per Trinitarianism, the Father shares his essence with the Son. Hence, Trinitarianism is false.

We aver, then, that Feser's ([Forthcoming](#)) defense of the argument for uniqueness fails.

Our second consideration is Feser's argument for uniqueness in the Thomistic proof. It begins as follows:

[I]f some thing's essence and existence are not really distinct, then they are identical; and if they are identical in that thing, then that thing would be something whose essence *just is* existence itself. Now, for there to be more than one thing that *just is* existence itself—suppose there are two, and label them A and B—then there would have to be something that differentiated them. There would have to be something by virtue of which A and B are distinct things rather than one thing. But what could that be? There are only two possibilities. A and B might be differentiated in the way two species of the same genus are differentiated; or they might be differentiated in the way two members of the same species are differentiated. And the problem is that on analysis it turns out that A and B could *not* be differentiated in either of these ways. (Feser [2017](#), p. 120)

But, first, it is simply false that if S's essence and existence are identical, then S's essence *just is* existence itself. If S's essence and existence are identical, we can only conclude that S's essence is identical to *its own act of existence*. We cannot conclude that S's essence is identical to *existence itself*.⁴ Second, Feser *flatly asserts*, but does not *justify*, that those are the only two possibilities for something that individuates A and B. Indeed, such a claim seems *false*. A might be identical to its own *F-ness*, while B might be identical to its own *G-ness*, without A and B falling under a common genus or species. (Perhaps we can only *analogously* predicate "being in

⁴Indeed, if we're understanding *existence itself* to be anything other than the property or universal *existence* that everything shares in common, then we struggle to understand what "existence itself" even *means*.

which essence and existence are identical” of A and B, such that there is no univocal, common kind into which they fall.) At the very least, Feser needs to *rule this out*. And yet all he offers on this front is bald assertions. Third and finally, the argument here poses a challenge to Trinitarianism. Suppose there were three divine persons, each of whom *just is* existence itself. There must be something in virtue of which the *three* are numerically distinct, and (supposedly) there are only two possibilities. And the problem is that on analysis it turns out that such persons could *not* be differentiated in either of these ways consistent with their being *existence itself*. For these three reasons, we won’t continue examining Feser’s argument for uniqueness. As it stands, the argument already fails.

Our third consideration is that Feser’s conclusion is, in part, a non-sequitur. Feser concludes in (13) to the reality of “some cause whose essence and existence are identical, something that *just is* subsistent existence itself” (2017, p. 130). But, again, it is simply false that if S’s essence and existence are identical, then S’s essence *just is* subsistent existence itself. If S’s essence and existence are identical, we can only conclude that S’s essence is identical to *its own act of existence*. We cannot conclude that S’s essence is identical to *subsistent existence itself*.

Our fourth consideration is simply a point of emphasis. In particular, we emphasize that there are several dialectical avenues we have not taken in response to the Thomistic proof. For instance, one might come equipped—as we do—with a non-Thomistic understanding of essence and/or existence that renders the argument a non-starter.⁵ Or one might disagree with the ontological pluralism underlying the argument, opting instead for ontological monism.⁶ Suffice it to note for now that the dialectical avenues we *have* pursued undermine the Thomistic proof. Onward we march, then, to the Rationalist proof.

11.3 Rationalist Proof

The Rationalist proof argues that contingent beings ultimately depend on the God of classical theism. In this context, something exists (obtains, is true) *contingently* if and only if it exists (obtains, is true) in some but not all possible worlds. A contingent thing, then, can fail to exist—it is possibly absent from reality. Now, Feser’s argument relies on the PSR, according to which “there is an explanation for the

⁵For instance, van Inwagen’s (2014) view of existence markedly contrasts with the much thicker notion that Feser’s Thomistic proof requires. Feser’s proof also denies that “being” is univocal, and one might adduce a wide variety of reasons to think this is problematic. (See the references from Chap. 3.)

⁶For recent defenses of ontological pluralism, see McDaniel (2009, 2010a, b, 2017) and Turner (2010, 2012, 2021). For a quite forceful attack on ontological pluralism, see Merricks (2019). For a development, extension, and application of Merricks’s argument to classical theistic proofs (including the Aristotelian proof, the *De Ente* argument, and the Thomistic proof), see Schmid (2021, Sect. 7.13).

existence of anything that does exist and for its having the attributes it has” (Feser 2017, p. 161). With this principle in hand—and leaving out the portions of Feser’s proof dedicated to justifying the PSR—Feser’s argument proceeds (our numbering):

1. [N]o contingent thing or series of contingent things can explain why there are any contingent things at all.
2. But that there are any contingent things at all must have some explanation, given PSR; and the only remaining explanation is in terms of a necessary being as cause.
3. Furthermore, that an individual contingent thing persists in existence at any moment requires an explanation; and since it is contingent, that explanation must be in some simultaneous cause distinct from it.
4. If this cause is itself contingent, then even if it has yet another contingent thing as its own simultaneous cause, and that cause yet another contingent thing as its simultaneous cause, and so on to infinity, then once again we have an infinite series of contingent things the existence of which has yet to be explained.
5. So, no contingent thing or series of contingent things can explain why any particular contingent thing persists in existence at any moment; and the only remaining explanation is in terms of a necessary being as its simultaneous cause.
6. So, there must be at least one necessary being, to explain why any contingent things exist at all and how any particular contingent thing persists in existence at any moment.
7. A necessary being would have to be purely actual, absolutely simple or noncomposite, and something which just is subsistent existence itself. (Feser 2017, pp. 162–163)

The argument instantiates a by-now familiar pattern: contingent things require concurrent causal sustenance in order to exist even for a moment; such chains of causal dependence (because hierarchical or *per se*) cannot be infinite; hence, there is a necessarily existent (and thus purportedly purely actual) being which sustains contingent things in being. What to make of the argument?

In light of the various metaphysical accounts of EIT (from Chap. 6) and rebuttals to the principal objections to EIT in the literature (from Chap. 7), premise (3) is false. For there are *other ways* to explain the persistence of temporal objects that don’t invoke sustaining efficient causes of their existence. We have already discussed such explanatory accounts in detail in Chap. 6. It suffices to note for now that *nothing* in Feser’s Rationalist proof rules out an appeal to *any* of these metaphysical accounts for explaining the continued existence of contingent things in inertialist-friendly terms. EIT, then, rather straightforwardly undercuts the argument, since—for all the argument has shown—contingent temporal objects⁷ may very well persist inertially while having explanations both for their existence and persistence.

⁷Or else a *necessary* temporal foundational object upon which they depend, as in ONA from Chap. 6. We set this proviso aside in the main text since such an account is already incompatible with classical theism.

The second problem for the argument is that it is simply incapable of establishing *classical* theism. The problem arises in particular with premise (7). Premise (7) is straightforwardly false: we've seen numerous times throughout this book that there is nothing incoherent in a non-purely-actual, necessarily existent being. A non-purely-actual, necessarily existent being's potencies must simply be potencies merely for *accidental* (rather than substantial) change. Feser re-iterates here (essentially) the same argument he gave for the inference from necessity to pure actuality in the Augustinian proof. In this context, he writes:

[F]rom the fact that it *is* necessary, it follows that it exists in a purely actual way, rather than by virtue of having potentialities that need to be actualized. For if it had such potentialities, then its existence would be *contingent* upon the existence of something which actualizes those potentialities—in which case it wouldn't really exist in a *necessary* way after all. (2017, p. 159)

But—as with the same reasoning proffered in the Augustinian proof—this is simply mistaken for two reasons. First, the passage equivocates between “contingent” in the sense of “possibly absent from reality” (on the one hand) and “dependent upon another” (on the other).⁸ Second, and more importantly, when one accepts the necessary (and *independent*) existence of a non-purely-actual entity (like the neo-classical theistic God), one does not say that the entity “exists by virtue of having potentialities that need to be actualized.” One is only saying that the being in question has various potentialities for *accidental change* (or potentialities for cross-world difference in accidental properties or for action), none of which *require* actualization *in order for* the being in question to exist. Feser needs to argue that the mere fact of having potentialities for accidental change entails that the being couldn't exist necessarily. But instead he has targeted the wildly different proposal that the necessary being has potencies in *need* of actualization in order to exist.

We haven't challenged the PSR, and nor have we challenged the argument's reliance on the finitude of hierarchical chains of dependence. For present purposes, we can grant *both* of these. Even still, the argument fails. Thus, the Rationalist proof—like all of Feser's other proofs—fails.

⁸For all Feser has shown, the necessary foundation of or explanation for contingent beings might be necessarily existent (in the sense of not possibly absent from reality) but nevertheless dependent. (But wouldn't this implicate us in a regress of dependent necessary beings, which must ultimately terminate in a first, independent necessary being? Not necessarily—at least, not necessarily *if* the dependence in question is mere linear or per accidens dependence. For Feser nowhere argues that regresses of linear or per accidens dependence must have a first member. Rather, he only argues that *hierarchical* or *per se* chains of dependence must have a primary or first member. But the necessary dependent thing in question might—for all Feser has shown in his Rationalist proof—be dependent merely in a per accidens chain.) Note, though, that this first response we've given to Feser's line of reasoning isn't our *primary* response. Our primary response is the second response, which is in the main text.

11.4 Conclusion

We've argued that both the Thomistic and Rationalist proofs fail. Concerning the Thomistic proof, we mounted three (or so) problems for its first stage. First, EIT defeats the proof's demand for a sustaining cause. Second, the proof fails to justify why a necessarily existent but essence-distinct-from-existence being (like the neo-classical theistic God or a foundational non-theistic necessary being) requires concurrent causal sustenance in order to exist. Third, the argument rests on metaphysical commitments like ontological pluralism, and so the argument will fall flat for those (like us) who reject such commitments. We also adumbrated other problems for the proof. For instance, arguably there are alternative, defensible views of existence that the Thomistic proof fails to rule out.

Concerning the Rationalist proof, we mounted two problems in this chapter. First, EIT defeats the proof's demand for a sustaining cause. Second, the premise that a necessary being must be purely actual is both false and unmotivated. Another problem—discussed in Sect. 8.3—is that if EIT is false, the sustaining actualizer of contingent objects' existence could easily be an unchangeable, atemporal, aspatial, and necessarily existent *universal wavefunction*. Not only are there independent motivations for such a view, but also defenders of persistence arguments (like the Rationalist proof) have failed to justify a preference for classical theism over such a view. Finally, a problem for both proofs is that they presuppose the failed stage two inferences from the Aristotelian proof.

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Chapter 12

Conclusion



12.1 Informal Summary

After laying the foundations in Chap. 1, we began our journey in Chap. 2 with a consideration of (McNabb and DeVito's formulation of) Aquinas's First Way. We uncovered several new problems for the argument, including a half dozen (or so) non-sequiturs. The result of the chapter was that the First Way fails to establish classical theism.

The next step on our journey was an analysis and evaluation of stage one of Feser's Aristotelian proof in Chap. 3. We found that some of the problems afflicting Aquinas's First Way likewise afflict the Aristotelian proof. But we also found that the Aristotelian proof faces a host of new problems of its own.

We then turned in Chaps. 4, 5, 6, and 7 to existential inertia. We hope that these chapters (at least partly) redress the scholarly dearth of literature thereon and inspire new discussion of the issue. We argued in Chap. 4 that a serious problem afflicts the Aristotelian proof: the proof arguably *entails* EIT and thereby undermines itself. In Chap. 5, we uncovered around a dozen taxonomic questions any inertial thesis needs to answer, and we uncovered in Chap. 6 a variety of viable metaphysical accounts of existential inertia. Then, in Chap. 7, we found that the central criticisms of EIT in the literature can all be met, and we also uncovered new motivations in favor of EIT. The result of these three chapters is an invigorated inquiry into a cutting-edge topic in contemporary metaphysics and philosophy of religion that is ripe for further investigation.

Chapter 8 was concerned with stage two of the Aristotelian proof. Therein we argued that none (or almost none) of Feser's stage two inferences succeed. We also argued that atemporal wavefunction monism strengthens the Gap Problem for persistence arguments more generally.

Feser's second proof, the Neo-Platonic proof, occupied Chap. 9. Therein we unpacked problems not only for the argument itself but also for its relation to

Christianity. Feser's third proof, the Augustinian proof, was the subject of the subsequent chapter, Chap. 10. Far from serving as the basis of an argument *for* classical theism, we argued that realism with respect to abstract objects actually militates *against* classical theism. Along the way, we also examined Anderson and Welty's argument from logic for God's existence as well as the merits and demerits of theistic conceptualism.

Feser's fourth and fifth proofs of God's existence—the Thomistic and Rationalist proofs—took center stage in Chap. 11. Therein we leveled three criticisms of the Thomistic proof: (i) EIT undermines the argument; (ii) the argument assumes, without adequate justification, that a foundational, necessarily existent being in which essence and existence are distinct would require a cause; and (iii) the argument requires highly questionable metaphysical theses like ontological pluralism, which in turn severely hampers its dialectical efficacy. We also leveled two criticisms of the Rationalist proof deriving from EIT and its inability to establish classical theism.

12.2 Formal Summary

Below we provide a formal summary of the problems afflicting the classical theistic proofs we've explored. We begin with McNabb and DeVito's rendition of Aquinas's First Way (Sect. 12.2.1), after which we proceed through each of Feser's five proofs.

12.2.1 First Way

1. The conclusion of the First Way follows logically only if both of the following hold: (a) we interpret the conclusion as saying <there is *at least one* first cause of *at least some* changes, not itself in a process of change>; and (b) we interpret premise (4) as denying the possibility of the following conjunction: (b.i) every first member in every per se chain of change is *itself* changed in a manner *unrelated* to the causal power of the series for which that first member serves as terminus, and (b.ii) every first member in every per accidens chain of change is changed in *some* manner, whether in a per se or per accidens series. But when premise (4) is understood according to (b), it is unmotivated, and when the conclusion is understood according to (a), it lends little to no support to classical theism.
2. Non-sequitur: From the fact that T is unactualized in respect F at time *t*, it doesn't follow that T is unactualized in respect F at times *other than t*.
3. Non-sequitur: From the fact that T is unactualized in respect F at times *other than t*—say, at each moment at which the relevant chain of changes C exists—it doesn't follow that T is unactualized in respect F at *all times* at which T exists.
4. Non-sequitur: From the fact that T is unactualized in respect F at all times at which T exists, it doesn't follow that T is *unactualizable* (as a matter of metaphysical necessity) in respect F.

5. Non-sequitur: From the fact that T is unactualizable in respect F, it doesn't follow that T is unactualizable in *every single respect* (i.e., that T is purely actual, full stop).
6. Non-sequitur: From the fact that T is unactualizable in every single respect (and hence purely actual), it doesn't follow that T is the *single source* or terminus of *every chain of changes* (i.e., of all change).
7. Non-sequitur: From the fact that T is a purely actual source of all change, it doesn't follow that the God of classical theism exists.
8. The hypothesis of multiple mundane first movers is qualitatively and quantitatively simpler than the alternative classical theistic single source hypothesis.
9. There are many ways to explain every actualization of potential without recourse to a purely actual *being*.

12.2.2 Aristotelian Proof

12.2.2.1 Stage One

1. Premise (7), according to which the existence of any act-potency composite substance S at any moment presupposes the concurrent actualization of S's potential for existence, is inadequately justified.
2. Plausibly, a per se, sustaining cause C is required for substance S's being in condition or outcome O only if (i) there is some causal factor F—intrinsic or extrinsic to S—acting on S to bring S toward some condition or outcome ~O; (ii) F is a *net* factor in the absence of C's causal operation; and (iii) S (or some state of affairs involving S) is in condition or outcome O distinct from ~O. This proposal is *prima facie* plausible; the proposal is explanatorily powerful; if true, the proposal would undermine the Aristotelian proof; and neither the Aristotelian proof nor what is said in justifying its premises gives those who hold to the proposal (or are agnostic thereon) reason to abandon their position.
3. Either CP₁ or CP₂ is true. Either way, the Aristotelian proof fails. For CP₂ is incompatible with classical theism, whereas CP₁ debars the inference to the unactualized actualizer's being *purely* actual.
4. The Aristotelian proof's causal principle undermines premise (7)'s demand for a sustaining efficient cause of act-potency composite objects, since the principle plausibly entails the Existential Inertia Thesis (EIT).
5. Non-sequitur: it doesn't follow from α 's being purely actual with respect to its substantial existence at t that α is purely actual with respect to α 's substantial existence *simpliciter*.
6. Non-sequitur: it doesn't follow from α 's being purely actual with respect to its substantial existence *simpliciter* that α is purely actual *in every respect whatsoever*.

7. EIT defeats the Aristotelian proof's demand for a sustaining cause of act-potency composite objects. The principal objections in the literature to EIT—including Feser's—can all be met. There are whole swathes of independently plausible metaphysical accounts of EIT (i.e., inertialist-friendly explanations of persistence and, *a fortiori*, objects' existence at non-first moments at which they exist). Finally, EIT enjoys a host of theoretical advantages (explanatory power, simplicity, etc.) vis-à-vis the classical theistic conservation thesis.
8. Even if EIT is false, the sustaining actualizer of act-potency composite objects' existence could easily be an unchangeable, atemporal, aspatial, and necessarily existent *universal wavefunction*. Not only are there independent motivations for such a view, but also defenders of persistence arguments (like the Aristotelian proof) have failed to justify a preference for classical theism over such a view.
9. The Aristotelian proof requires highly questionable metaphysical underpinnings such as ontological pluralism. But then the argument will fall flat for those (like us) who reject such underpinnings.

12.2.2.2 Stage Two

1. Either S's undergoing extrinsic change is compatible with S's being timeless, or not. If S's undergoing extrinsic change *is* compatible with S's being timeless, then Feser's stage two inference to the timelessness of the purely actual being fails. If *not*, then classical theism must either be wedded to a tenseless theory of time or an implausible fragmented view of reality.
2. Feser's inference to maximal perfection is implausible and extremely limited.
 - (a) The conclusion does not entail that the purely actual being is *axiologically supreme*.
 - (b) The conclusion only allows us to infer that the purely actual being possesses *only* perfections. It does not allow us to infer that the purely actual being possesses *all* perfections.
 - (c) Feser implausibly defines maximal perfection. The underlying problem is that Feser's definition mistakenly conflates x's being maximally perfect with x's being an ideal instance.
 - (d) The definition of maximal perfection at play is deeply implausible, for it entails that McSwitch, exact geometric circles, and the suffering-inducer would be maximally perfect beings.
 - (e) It's not clear whether being defective entails having potencies. In principle, an irredeemably and necessarily defective being seems epistemically possible. Feser provides no reason to think such a being is impossible.
3. Feser's inference to uniqueness fails.
 - (a) One of his arguments for uniqueness fails because a differentiating feature could be had in terms of something *other than* an unactualized potential.

- (b) Another of Feser's arguments for uniqueness fails because (i) the argument unjustifiably and implausibly assumes that the only two types of (differentiating) features are privations or perfections; (ii) the argument unjustifiably assumes that purely actual beings (would) form a kind; and (iii) the argument is incompatible with Trinitarianism.
4. Feser's inference to goodness is implausible and highly limited.
 - (a) Feser's first argument is unable to establish the purely actual being's *moral* goodness (and, in particular, the kind of *omnibenevolence* we want to ascribe to God). Moreover, the argument implausibly entails that McSwitch, exact geometric circles, and the suffering-inducer would be fully good.
 - (b) Feser's second argument presupposes the failed inference to uniqueness. The argument also misuses the PPC and only allows us to infer *a capacity to produce* goodness. Moreover, there are absurd, PPC-based parody arguments.
 5. Feser's inference to omnipotence fails.
 - (a) It presupposes the failed inference to uniqueness.
 - (b) It mistakenly entails that the purely actual being could (in principle) be omnipotent despite only having one direct power.
 - (c) It mistakenly defines omnipotence.
 6. Feser's inference to intelligence fails.
 - (a) It misuses the PPC and only allows us to infer the foundational cause's *capacity to produce* the forms of its effects.
 - (b) It unjustifiably assumes a controversial account of the nature of intellection.
 7. Feser's inference to omniscience fails.
 - (a) It presupposes the failed inferences to uniqueness and intelligence.
 - (b) Even granting uniqueness and intelligence, all Feser's inference can show is that the abstract forms of concrete things exist in the purely actual being as abstracted concepts in an intellect. But concepts alone are merely the *atomic components* of thoughts; the mere possession of (all) concepts neither means nor entails the possession of (all) *thoughts*. The concepts must also be arranged, ordered, or structured in the right way.
 - (c) Knowledge doesn't simply involve truths "being in the range" of one's thoughts (whatever that means). It's not sufficient for knowledge merely to think a thought. What's required in addition is (i) some form of warrant or justification or explanatory connection to the fact(s) known, (ii) some kind of doxastic attitude toward the propositions, and (iii) truth-tracking doxastic attitudes—each of which Feser fails to justify.
 8. Feser's inference to free will fails.
 - (a) It presupposes the failed inferences to uniqueness, intelligence, omniscience, and more.

- (b) It unjustifiably assumes a specific account of volition, and it also unjustifiably assumes—holding fixed such an account—that the purely actual cause satisfies said account.
 - (c) It unjustifiably assumes that the purely actual being's non-necessitated actions are *intentional* and under agential *control*.
 - (d) Feser's argument that nothing internal to such a being compels the being to act fails, as the argument presupposes that we have a complete (or else representative) grasp of *all* concepts that do or could exist within the divine intellect. The argument also unjustifiably and mistakenly assumes that the only candidate internal compulsions are concepts within the purely actual being's intellect.
9. Feser's inference to immateriality fails.
- (a) It unjustifiably and implausibly assumes that being material entails being changeable and existing in time. There are independently defensible views in the philosophy of physics on which this is false, and Feser doesn't justify denying such views.
10. Atemporal wavefunction monism strengthens the Gap Problem for persistence arguments more generally.

12.2.3 *Neo-Platonic Proof*

1. Premise (3)—the Neo-Platonic Causal Principle (NPCP)—is both inadequately justified and implausible. Feser's four-step justification for NPCP fails.
 - (a) The justification fails because it entirely overlooks the metaphysical accounts of EIT developed in Chap. 6.
 - (b) *Step one* is that all composites depend on their parts. This step fails to disentangle logical and metaphysical dependence. It's also plausible that some wholes can ground their parts, and hence the *parts* (metaphysically) depend on the whole (*not vice versa*).
 - (c) *Step two* is that wholes cannot cause the combination of their parts. But this by no means entails that wholes cannot *explain* their parts.
 - (d) *Step three* is that it's clear that there are extrinsic causal factors that sustain composite objects in existence. But, first, this isn't true. And second, even if it's true that *macroscopic physical objects* clearly have such causes, it doesn't follow that *any composite object whatsoever* requires an efficient sustaining cause. Indeed, this is deeply implausible when considering the neo-classical theistic God or some non-theistic foundational layer of concrete reality.
 - (e) *Step four* extends the arguments concerning physical composition to *metaphysical* composition. But, first, this assumes without justification that there is such a thing as metaphysical composition. Second, vicious explanatory

circles are metaphysically impossible *regardless* of an extrinsic cause. Third, there are perfectly legitimate explanations of the combination of parts that *avoid* vicious circularity but that *don't* adduce extrinsic sustaining efficient causes. And even if these aren't legitimate or adequate explanations, nothing in Feser's proof *justifies* why they're illegitimate or inadequate.

2. The Neo-Platonic proof unjustifiably and implausibly assumes that the unity of something's parts cannot have an *internal* cause for their combination or togetherness.
3. Feser's inference to the mindedness of the simple being fails.
4. The simplicity of the first cause militates *against* its mindedness (given other commitments of classical theism as well as certain core realist intuitions).
5. Feser's inference to the uniqueness of the absolutely simple being is incompatible with Trinitarianism.
6. The exact same motivation for demanding an extrinsic cause of the unity of composite objects equally applies to the multiplicity of divine persons in a single Godhead. Any response to avoid the demand for a sustaining cause of the latter seems equally to work for the former, which undermines NPCP.
7. Similarly, the motivation for demanding an extrinsic cause of the unity of composite objects equally applies to the two natures united in the person of Christ. Any response to avoid the demand for a sustaining cause of the latter seems equally to work for the former, which undermines NPCP.
8. EIT defeats NPCP and, consequently, the Neo-Platonic proof itself.
9. Stage two of the Neo-Platonic proof presupposes the failed stage two inferences of the Aristotelian proof. Thus, even if stage one succeeds, the Neo-Platonic proof does not show that God exists.

12.2.4 Augustinian Proof

1. Non-sequitur: From the mere fact that the intellect in question *does not possess* knowledge of contingent truths, it doesn't follow that the intellect has unrealized potential.
2. Feser's premise inferring the intellect's conceptual omniscience is unmotivated.
3. Feser's premise that a necessary intellect must be purely actual is false and unmotivated. In principle, there could easily be a necessarily existent being with potentials for accidental change or cross-world variance.
4. The Augustinian proof is incompatible with classical theism, since it entails the existence of positive ontological items intrinsic to but distinct from God.
5. Keller's Theistic Argument from Intentionality motivates a denial of classical theism based on the existence of propositions.
6. Goldschmidt's Argument from Numbers motivates a denial of classical theism based on the existence of numbers.

7. Menzel's Argument from Collections motivates a denial of classical theism based on contingent aspects of the set-theoretic hierarchy.
8. Feser's Augustinian proof crucially relies on the falsity of Platonism, but all of Feser's "insuperable" arguments against Platonism suffer from insuperable problems.
9. Theistic conceptualism faces several serious challenges, none of which Feser addresses.
10. Stage two of the Augustinian proof presupposes the failed stage two inferences of the Aristotelian proof.

12.2.5 *Thomistic Proof*

1. EIT defeats the Thomistic proof.
2. Feser fails to justify why a necessarily existent but essence-distinct-from-existence being (like the neo-classical God or a foundational non-theistic necessary being) requires concurrent causal sustenance in order to exist.
3. The Thomistic proof requires highly questionable metaphysical underpinnings such as ontological pluralism as well as the thesis that "being" is not univocal. But then the argument will fall flat for those (like us) who reject such underpinnings.
4. There are alternative, defensible views of existence that the Thomistic proof fails to rule out. Yet ruling such views out is required for the proof's success.
5. Stage two of the Thomistic proof presupposes the failed stage two inferences of the Aristotelian proof. Thus, even if stage one succeeds, the Thomistic proof does not show that the God of classical theism exists.

12.2.6 *Rationalist Proof*

1. EIT defeats the Rationalist proof.
2. Even if EIT is false, the sustaining actualizer of contingent objects' existence could easily be an unchangeable, atemporal, aspatial, and necessarily existent *universal wavefunction*. Not only are there independent motivations for such a view, but also defenders of persistence arguments (like the Rationalist proof) have failed to justify a preference for classical theism over this view.
3. The premise that a necessary being must be purely actual is both false and unmotivated.
4. Stage two of the Rationalist proof presupposes the failed stage two inferences of the Aristotelian proof. Thus, even if stage one succeeds, the Rationalist proof doesn't show that the God of classical theism exists.

12.2.7 *Classical and Non-classical Theism*

1. Classical theism faces a significant challenge under tensed views of time when it comes to God's changing knowledge.
2. The necessary existence of non-God items (e.g., numbers, propositions, mathematical objects, etc.) threatens classical theism's commitment to God's freedom to create or refrain from creating any positive ontological item distinct from God.
 - (a) We also saw how this problem is compounded by the arguments from abstracta developed by Keller, Goldschmidt, and Menzel.

12.3 Conclusion

Investigating the foundations of change, composition, abstracta, existence, and contingency is—to adopt Carl Sagan's (1994, p. 7) line—a humbling and character-building experience. The investigation takes care, courage, honesty, curiosity, even *love*. Debates about the nature and existence of God are often accompanied by rampant tribalism. In tribalistic thinking, arguments are used as weapons to attack, bludgeon, and threaten rather than tools designed to serve and probe. Interlocutors are stripped of their value, antagonized, and deemed irrational. We invite you—us, really—to rebel against this tribalism. Combatting tribalism requires a mutual recognition that we are fellow explorers who can *learn* from one another and seek the beautiful treasure of truth *together* as an enterprise of curiosity, respect, and love. How you use the arguments contained in this book is, ultimately, up to you. But we enjoin you to use them in the service of truth, in the service of others, and in the service of the majesty of reason.

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